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Original Articles.

CONGENITAL OBLITERATION (OR CONGENITAL ATRESIA) OF BILE-DUCTS WITH HEPATIC CIRRHOSIS.*

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THE child, Doris S—, when admitted to the German Hospital on July the 4th, 1910, was four months old, well formed and not emaciated (body-weight 11¼ lb. on July the 5th), but rather deeply jaundiced, and showing considerable firm enlargement of both the liver and the spleen; the lower borders of these organs were about half-way between the costal margin and the umbilicus. At that time and until the child's death no bile entered the intestine, for the fæces ("acholic") were white and free from urobilin (stercobilin), whereas the urine always contained bile-pigment and gave Gmelin's reaction for bilirubin, though (by the ordinary tests) it was always free from urobilin and urobilinogen. This would not have been the case had any bile been entering the intestine, since the evidence obtained from experimental work and from clinical and necropsy records is now quite sufficient to prove that when urobilin and urobilinogen are present in the urine there must be some bile (whether from the

* A paper read at the Royal Society of Medicine (Section for Disease in Children), November the 25th, 1910.

liver or artificially introduced from without) entering the alimentary canal, whereas if urobilin and urobilinogen are always absent from the urine (and fæces) no bile can be finding its way into the alimentary canal.*

The history given was that the jaundice had been noticed *soon after* birth. We have no information in regard to the colour of the meconium (and the early fæces). At birth the child seems to have had a bullous eruption, from which it recovered under medical treatment in the course of two months. No evidence was obtained of syphilis in the parents, who were both young, the patient being their first child. The absence of inherited syphilis in the case was further confirmed by Wassermann's sero-reaction, which was kindly tried (July, 1910) by Dr. H. R. Dean, at the Lister Institute, with negative result.

Subsequent Course of the Case in the Hospital.

The case was at first under the care of Dr. Fürth, but later on, owing to his absence on a holiday, was kindly handed over by him to Dr. Weber. The general condition varied somewhat from time to time. Ordinarily, the child seemed free from pain and happy and took her food. Occasionally there was slight fever. The urine was free from albumin until the end, when it contained a trace.

A blood-count made on July the 15th gave the following result: Red cells 6,080,000 in the cubic millimetre of blood; white cells 8700 in the cubic millimetre of blood; hæmoglobin 122 per cent. The differential count of 500 white cells (which was kindly made by Dr. A. E. Boycott) gave: Neutrophile polymorphonuclears 51 per cent.; lymphocytes 39·4 per cent.; large hyalines 5 per cent.; eosinophiles 4·6 per cent. No mast-cells were seen. The red cells appeared normal. The blood-serum obviously contained bile-pigment. It may be worth mentioning that the red blood-corpuscles, tested with regard to their resistance to hæmolysis (July the 14th), by being added to graduated hypotonic aqueous solutions of sodium chloride, appeared to be rather less resistant to hæmolysis than the red corpuscles from healthy persons, though the resistance of the red corpuscles in cases of obstructive jaundice (both in adults and children) towards hypotonic saline solutions is often somewhat greater than in ordinary healthy subjects. In the present case very slight hæmolysis occurred when the washed red cells were added to

* See Friedrich Müller, 'Ueber Icterus,' 1892; also A. E. Garrod and Gowland Hopkins, 'Journ. of Physiol.,' Cambridge, 1896, vol. xx, p. 112.

an aqueous solution of 0·63 per cent. sodium chloride, and hæmolysis was complete with a solution of 0·45 per cent.; whereas by the same method in normal blood Dr. Dorner finds that hæmolysis usually only commences with a solution of about 0·45 per cent.

At the end of July the jaundice was very deep and there was a dusky pigmentation of the skin in addition to the jaundice; there was some ascites. The child was not markedly emaciated, and took her food fairly well, though she sometimes vomited part of it out again. The body-weight at the end of August was 13½ lb. By the commencement of September the ascites had decidedly increased, and on September the 6th, 350 c.c. of clear, bilious ascitic fluid was removed by paracentesis abdominis. The ascitic fluid was of specific gravity 1012 and contained rather more than 3 per mille albumin; it gave a negative reaction to Rivalta's test*—that is to say, a drop of the fluid, when allowed to fall into a glass containing very slightly acidified water, did not produce a smoky-looking cloud like a drop of any inflammatory serous effusion invariably does. Afterwards the child had diarrhœa and vomiting. On September the 8th the child looked rather emaciated and there were slight bronchitic signs. In the evening she had fever (102° F.) and slight convulsions, and died at 9 p.m. (September the 8th), when a little over six months of age.

Necropsy.

The *liver* (weight 9 oz.) was of green colour, finely cirrhotic, and had a slightly granular surface, with a little patchy peri-hepatitic thickening of the capsule. The gall-bladder was found contracted (with thick walls), and containing only a little transparent, colourless slimy fluid. The cystic duct, the distal part of the hepatic duct and the common bile-duct (choledochus) were represented by connective-tissue cords (see diagram); that representing the common bile-duct apparently disappeared altogether before it reached the duodenum. The proximal part of the hepatic duct (up to the site of obliteration of the channel) and its right and left trunks (coming respectively from the right and left lobes of the liver) were moderately dilated and contained green inspissated bile. The *pancreas*

* This test to distinguish between inflammatory and passive serous effusions was described by Rivalta in 1895; see F. Rivalta, 'Riforma med.,' Napoli, 1895, vol. xi, p. 242; also R. Lauter, 'Comptes rend. hebd. de la Soc. de Biologie,' Paris, 1909, vol. lxvii, pp. 223, 385, 827. In confirmation of Rivalta's conclusions we have found, as far as our observations go, that a drop of inflammatory effusion always gives rise to a smoky cloud.

appeared normal and the opening of the pancreatic duct into the duodenum at the "biliary papilla" was apparently pervious; at all events, a fine probe could be passed from the duodenum into a duct opening at the "biliary papilla."

The *brain* (weight 20½ oz.) appeared normal and its substance (and the cerebro-spinal fluid, we think) was not jaundiced. There was some broncho-pneumonia. The heart (weight 1 oz.) showed nothing of importance. There was no ascites. In regard to the alimentary canal it may be remarked that the intestines seemed considerably too thick for the age of the child. The *spleen* (weight 2½ oz.) was enlarged, of rather firm consistence, and there were patches of perisplenitic thickening of the capsule. The kidneys (weight together 2½ oz.), the supra-renal glands, and the thymus, showed nothing special. The bone-marrow in the shaft of the right

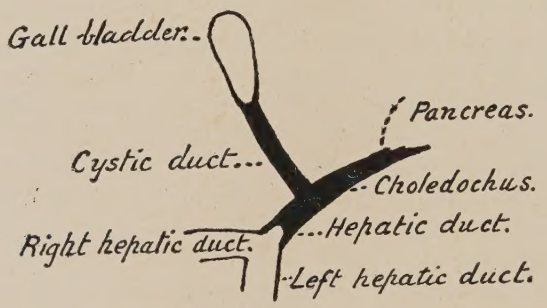

Diagram to show which of the extra-hepatic biliary ducts were represented by solid cords.

humerus, which was opened, was quite red. The mesenteric lymphatic glands were enlarged and some of them reddish on section. There were many enlarged red lymphatic glands along the spinal column. No congenital malformation was found anywhere in the body except that described in connection with the bile-ducts.

Microscopical Examination.

The *liver* showed a uniform cirrhotic change of interlobular ("monolobular," better "unilobular") distribution, with considerable interlobular increase of biliary vessels. Many of these small bile-ducts in the connective tissue between the lobules, as well as many of the minute intra-lobular biliary channels, were plugged with inspissated bile. In fact, the microscopic picture was a typical one of so-called "biliary cirrhosis," such as has been experimentally produced,

through ligature of bile-ducts in animals, by Charcot and Gombault,* D. Gerhardt,† D. Nasse,‡ Vaughan Harley and Barratt,§ and others. A similar biliary cirrhotic change in the liver (though in a less typically unilobular form) has been sometimes found in necropsies on patients who have suffered from chronic obstructive jaundice due to gall-stones, etc.‖

The *spleen* showed an increase in the thickness of the capsule and the fibrous trabeculæ—that is to say, an increase in the fibrous supporting framework of the organ. The large size of the organ was doubtless partly due to increase of the pulp-tissue, which was decidedly in excess as compared with the lymphadenoid tissue of which the Malpighian corpuscles are composed. Dr. J. C. G. Ledingham, whom we must here thank for his kindness in looking through most of the sections from the case with us, points out that a marked feature of the spleen is that there are a great number of plasma-cells in the neighbourhood of the large trabeculæ and walls of the blood-vessels¶; many of the plasma-cells are being enclosed in the cytoplasm of phagocytic endothelial cells.

The sections of pancreas, kidney, heart-muscle and intestine showed nothing special. The most interesting part of the microscopical examination was that of the extra-hepatic bile-ducts, and of the connective-tissue cords representing them.

Sections of the wall of the *gall-bladder* showed that it was thickened, and that it was very rich in connective tissue and blood-vessels of a peculiar kind. These blood-vessels consisted almost entirely of endothelial cells, and reminded one of the embryonic type of blood-vessels met with so conspicuously in some forms of cutaneous nævus (hæmangioma hypertrophicum, hæmangio-endothelioma). Many of the vessels in question might be described as endothelial cells arranged in more or less thick columns, with empty channels. In some columns, indeed, there was no obvious lumen.

* Charcot and Gombault, 'Arch. de Physiol.,' 1876, second series, vol. iii, p. 272.

† D. Gerhardt, 'Arch. f. Exper. Path. und Pharm.,' 1892, vol. xxx, p. 1.

‡ D. Nasse, 'Arch. f. klin. Chirurgie,' 1894, vol. xlviii, p. 885.

§ Vaughan Harley and W. Barratt, 'Journ. of Path.,' 1901, vol. vii, p. 203.

‖ For a review of this whole subject see F. Parkes Weber, "On Biliary Cirrhosis of the Liver, with and without Cholelithiasis," 'Trans. Path. Soc., Lond.,' 1903, vol. liv, pp. 103–135. This paper contains numerous references to the literature of the subject.

¶ Sections of the spleen from a previous case of "Congenital Obliteration of Bile-Ducts," described by F. P. Weber in 'Proc. Roy. Soc. Med.,' 1909, vol. ii (Section for Disease in Children), p. 231, were examined by Dr. Ledingham. He found there likewise "plasma-cells in large numbers arranged round the sheaths of the vessels or indiscriminately among the pulp-cells."

The microscopical examination of the *proximal portion of the hepatic bile-duct* (the portion which contained inspissated bile) disclosed a remarkable condition. The walls were very rich in connective tissue and in the "endothelial" type of young blood-vessels which has just been described. The hepatic duct was lined by inspissated bile; no epithelial layer could be made out. But its lumen, in addition to the inspissated bile, contained a good deal of loose connective tissue, containing blood-vessels, similar to the loose connective tissue which replaces a blood-clot in the interior of a blood-vessel, when organisation and vascularisation of the thrombus has occurred. It seems probable that the plug of inspissated bile in the interior of the hepatic bile-duct in our present case has been dealt with by Nature in the same way in which Nature usually deals with a thrombus blocking a blood-vessel, namely, that it has been treated as a foreign body, and has been partially removed by a process of organisation and vascularisation.

Our sections of the *common bile-duct* (*choledochus*), or rather, of the connective-tissue cord which represented it, showed on microscopical examination no trace of any lumen at all. They merely showed connective tissue very rich in the "endothelial" or embryonic type of young blood-vessels previously described. Quite possibly, therefore, the cord representing this part of the choledochus never had any channel at any time (see later on, under "Remarks"). It is worth mentioning also that in some of our microscopical sections of this region we cut across two veins of ordinary type, which showed patches of thickening and calcification of the elastic layer immediately external to their endothelial lining.

Remarks.

The present case differs from the case of congenital obliteration of bile-ducts previously described by Dr. Weber (May, 1909)* in that in the previous case the obstruction to the entry of bile into the intestine was not always complete, whereas in the present case, as we have already pointed out, no bile could have entered the intestine whilst the child was in the hospital. Nevertheless, the patient in the present case lived to six months of age—one month longer than the first child did. In the present case it seems difficult to account for the supposed absence of jaundice at birth.

* F. P. Weber, 'Proc. Roy. Soc. Med.,' 1909, vol. ii, Section for Disease in Children, p. 231.

The chief points of interest are those connected with the examination of the extra-hepatic biliary channels. The almost complete absence of evidence of active inflammation, both in the pervious ducts and in the impervious ducts (or rather, cords), makes it seem highly probable that the disease in the present case is to be regarded as primarily an error of development in the bile-ducts, with secondary biliary cirrhosis of the liver as a result of obstruction to the bile-flow. This corresponds with the views recently expressed both by R. S. Lavenson* and by John Thomson.† As already mentioned, it seems, indeed, in the present case quite likely that the connective-tissue cord representing part of the common bile-duct (choledochus) never contained a lumen at any time. This would fit in with the teaching that the bile-ducts are originally solid cords, "Remak's fibres," which subsequently become hollowed out to form channels. According to this view, the so-called congenital "obliteration" of bile-ducts would really be due not to obliteration, but to failure of formation of the lumen in some portion of the extra-hepatic biliary tract, and the condition, as Lavenson points out, would be better termed "congenital atresia" of bile-ducts.‡

Probably the only *operation* which could have been performed was the establishment of a biliary fistula, as suggested by M. Hirschberg§ and J. Rotter,‖ by boring a hole (*e. g.* with a Paquelin's cautery) into the substance of the liver ("hepatostomy"), endeavouring in that way to drain away the bile by opening up one or more large intra-hepatic bile-ducts. This method was tried by Dr. Michels in the case of an adult with chronic jaundice due to primary carcinomatous obstruction at the junction of the two hepatic bile-ducts, and the case was described by him and Dr. Weber in the 'Medico-Chirurgical Transactions' for 1905.¶ But there is great difficulty in keeping a biliary fistula of this kind ("hepatostomy") open for a long time, and it is unlikely that the child in the present case would have benefitted from such an operation. In regard to the question of operation in the rare cases of supposed congenital stenosis of bile-ducts in older children and adults a real indication seems to be the

* R. S. Lavenson, 'Proc. Path. Soc. Philadelphia,' 1907, and 'Journ. Med. Research,' Boston, 1908, vol. xviii, p. 61.

† John Thomson, Allbutt and Rolleston's 'System of Medicine,' second edition, London, vol. iv, Part I, pp. 103–108.

‡ R. S. Lavenson, *loc. cit.*

§ M. Hirschberg, "Die Behandlung schwerer Lebererkrankungen durch die Anlegung einer Leber-Gallengangsfistel," 'Berl. Klinik,' 1902, vol. xv, Part 172.

‖ See H. Scheuer, 'Berl. klin. Wochenschr.,' 1902, vol. xxxix, p. 138.

¶ Weber and Michels, 'Med.-Chir. Trans.,' London, 1905, vol. lxxxviii, p. 247.

presence of a distinct tumour (bile-retention cyst) accompanied by chronic obstructive jaundice (Victor Veau*). An interesting case of obliteration of the common bile-duct (choledochus), acquired in early life, was that of a girl, aged 19 years, who had suffered from obliterative jaundice for sixteen years before Sir F. Treves† performed the operation of cholecyst-enterostomy.

In regard to *diagnosis*, cases of ordinary "icterus neonatorum" can be recognised by the early clearing up of the jaundice, whereas in the present class of cases the jaundice gradually deepens, although the degree of jaundice in some cases varies from time to time. Cases of what may be termed "familial icterus gravis neonatorum,"‡ which have been shown not to be connected with congenital obliteration of bile-ducts, and are apparently not necessarily connected with sepsis or inherited syphilis, have to be distinguished. Their pathology is still imperfectly known, but they have been shown not to be connected with congenital obliteration of bile-ducts, and, though the spleen is probably generally enlarged, the liver shows no constant changes, and the fæces are not always, if ever, "acholic." Moreover, in some of these there has been "Kernicterus" of the brain, and it is possible that the cerebro-spinal fluid obtained by lumbar puncture would contain bile-pigment, which it does not contain in most jaundice cases.§

Infective jaundice in newly born children, connected with umbilical phlebitis, etc., may be distinguished by the local and constitutional signs of infection. The "pericellular" (better, "intra-lobular" or "intercellular") hepatic cirrhosis of inherited syphilis is not usually accompanied by jaundice, but cases of jaundice in children apparently due to syphilitic stenosis of bile-ducts have been recorded by Beck‖ and H. D. Rolleston.¶ From such syphilitic cases the cases of congenital obliteration of bile-ducts (like our present one) may be

* V. Veau, 'Bull. de la Soc. de Péd. de Paris,' 1910, vol. xii, p. 289.

† Treves, 'Practitioner,' London, 1899, vol. lxii, p. 18.

‡ See especially J. Pfannenstiel, "Ueber den habituellen Ikterus gravis der Neugeborenen," 'Münch. med. Wochenschr.,' 1908, vol. lv, p. 2169; and Nahm's paper on the same subject, *ibid.*, 1909, vol. lvi, p. 139. See also H. D. Rolleston, "Recurring Jaundice in Four Successive Pregnancies and Fatal Jaundice in Three Successive Infants," 'Brit. Med. Journ.,' 1910, vol. i, p. 864. Pfannenstiel and Rolleston give references to several published series of cases which fall into the group of "familial icterus gravis neonatorum."

§ See, however, an exception to this rule in the case of an adult recorded by Mosny and A. Javal, 'Bull. de la Soc. Méd. des Hôpitaux de Paris,' 1909, third series, vol. xxviii, p. 280.

‖ Beck, 'Prager med. Wochenschr.,' 1884, vol. ix, pp. 257, 266, 284. See also the references to the literature of the subject given by Lavenson, *loc. cit.*

¶ H. D. Rolleston, 'Brit. Med. Journ.,' 1907, vol. ii, p. 947.

distinguished by the absence of the ordinary signs of inherited syphilis and by a negative Wassermann's sero-reaction for syphilis (the reaction was negative in our present case).

The gradual deepening of the jaundice in cases of congenital obliteration of bile-ducts, the enlargement of the liver as well as of the spleen, and (above all) the definite clinical evidence that the jaundice is obstructive, distinguish these cases from cases of congenital acholuric (so-called "hæmolytic") jaundice with splenomegaly.*

In regard to *further investigation* on the subject of so-called "congenital obliteration" of the bile-ducts. What is chiefly needed is obviously very careful microscopical examination, in all cases, of the bile-ducts, and the connective-tissue cords representing the bile-ducts, especially in the neighbourhood of the termination of the lumen. Information of this kind would likewise be very valuable in the rare cases of chronic obstructive jaundice supposed to be due to stenosis of the choledochus, of congenital origin or dating from the first years of life.†

ENLARGEMENT OF THE TUBERCLE OF THE TIBIA.

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Enlargement of the tubercle of the tibia during adolescence is by no means a new disease, but our accurate knowledge of it dates from the publication of observations by Osgood in America, and Schlatter in Germany, in 1903. Both these observers described the condition as due to the tearing off of the epiphysis of the tubercle, or of a portion of it, by muscular violence, occurring usually in athletic boys. There is no doubt that this is not invariably the pathology of the condition, but in the main their account holds good.

The accounts of the mode of ossification of the tubercle of the tibia given by different anatomists vary considerably. The tubercle during early years is a cartilaginous mass continuous with the upper epiphysis of the bone. In this (according to Rambaud and

* For the literature on this subject see F. P. Weber and G. Dorner, "Four Cases of Congenital Acholuric Jaundice in One Family," 'Lancet,' London, 1910, vol. i, pp. 227–232.

† See the papers by Treves and by Veau already referred to, *loc. cit.*

Renault) a separate centre of ossification appears at the age of eight to ten years, or sometimes later at twelve to fourteen. This extends rapidly, and soon unites with the anterior part of the upper epiphysis, so as to form a tongue projecting down from it. Sappey, Poirier, and Testut all describe this separate epiphysial ossification; according to the latter it appears at the age of twelve to fourteen, and unites with the upper epiphysis a few months later. According to some more recent anatomists the separate centre is only occasionally present, the usual method of ossification being by extension from the upper epiphysis. Whichever view is correct it is certain that at the age of fourteen the tubercle consists of a tongue-like process extending down from the anterior part of the upper epiphysis of the tibia and separated from the shaft by a layer of cartilage.

This process unites to the shaft at eighteen to twenty-four, union occurring first at the upper part and extending downward. According to Parsons this epiphysis is a traction epiphysis formed in lower mammals as a sesamoid bone in the lower part of the ligamentum patellæ, and uniting to the shaft and to the anterior part of the upper epiphysis. Parsons states that the separate epiphysis is always present in the lower mammals, but that it is often slurred over in man, the bone growing down from the upper epiphysis. He also points out that union takes place from above downward, the upper part, which is more strongly pressed against the head by the pull of the ligamentum patellæ, uniting first.

The insertion of the ligamentum patellæ spreads out over the lower part of this epiphysis and the neighbouring part of the shaft. It is strengthened, according to Morris, by strong aponeurotic expansions on either side, which are inserted into oblique ridges on the head of the tibia as far out as the lateral ligaments.

Complete separation of the tubercle by violence is rare; it necessitates fracture of the connection of the tubercle with the upper epiphysis and tearing of these lateral aponeuroses. Unless the latter are torn very little separation can occur. Poland could find only ten cases recorded, most of which occurred in boys of sixteen to eighteen, and were due to violent action on the quadriceps muscle in the act of vaulting. When separation was complete effusion of blood into the knee-joint occurred. Fixation on a back splint, with pressure over the tubercle, gave good results, with bony union at least in some of the cases.

That enlargement of the tubercle which is not uncommon in children of twelve to eighteen, and is now often called Schlatter's disease, was described by Osgood and Schlatter as the result of

partial separation of the tubercle by similar muscular violence in jumping or running. It is more common in boys than in girls and usually occurs at fourteen to sixteen; it may occur, however, as early as eleven, or as late as eighteen or nineteen. The subjects are often athletic and the condition is ascribed to injury in the gymnasium or on the football field, but it is the exception to find the condition ascribed to one specific injury. This is possibly because slight injuries to the knee region are so frequent in children, and because the painful swelling may come on some weeks or months after the injury.

The complaint is of swelling of the tubercle, which is tender on pressure, or painful when any exercise is taken in which the quadriceps is exerted powerfully. The pain may even persist at night. Occasionally both knees are affected, and such cases arouse the suspicion that trauma is only one element in the causation. Such a case is the following:

P. E—, a girl, aged 10½ years, attended hospital for pain in the left knee with swelling of the tubercle and adjacent part of the knee-joint, which was painful on pressure. A skiagram taken at the time was said to show no disease. At the age of thirteen she returned with both knees painful and the tubercles enlarged. Skiagrams at this age showed the tongue-like process from the head into the tubercle well developed, but hollowed out on the anterior surface, two small separate spicules of bone lying over this cup on the right knee, a single such spicule on the left knee. The only possible cause which can be assigned is constant kneeling. Since the age of ten this girl had done a great deal of scrubbing.

In a second bilateral case there was a definite direct injury to one knee, but the other was the more painful.

J. L—, a boy, aged 14 years, was kicked on the right knee on February the 10th, but had no accident to the left side. Pain came on in the left knee in March. When seen on April the 2nd he had considerable enlargement of the right tubercle, less enlargement of the left. Skiagrams showed that on each side the tongue-like projection of the head into the tubercle was absent, but the upper epiphysis was united to the shaft anteriorly by a rounded piece of bone. In the tubercle was a separate ossific nucleus widely separated from the shaft, but not displaced upward. This nucleus was much too small to fill the tubercle, which must have been largely cartilaginous. The appearances on the two sides were identical except that on the right the ossific nucleus in the tubercle showed a transverse line as if fissured.

The skiagraphic appearances are typical of those found in other cases. In one group the normal tongue-like process is present; it may be more widely separated from the shaft at its lower end than usual, and may be fissured across the neck. Further, it is rough on the anterior surface and may show a cup-like depression. One or more additional pieces of bone lie superficial to it, apparently in the ligamentum patellæ.

Fig. 1.—Skiagram of right knee of P. E—. (Taken by Dr. Finzi.)

In the second group the normal tongue-like process is absent and is apparently replaced by an anterior union between the upper epiphysis and the shaft, and by a separate ossific centre in the tubercle, which may be in one or two pieces. Osgood ascribed these to separation of the lower part of the ossific centre from the upper epiphysis by fracture, displacement following. This theory is negatived by the absence of any upward displacement of the

fragment, and also by the discovery that when this separate ossific centre is present it is present in both knees, that is to say it is a developmental abnormality.

In later stages additional spicules of bone are to be seen in the skiagram lying higher in the ligamentum patellæ.

The painful condition may last for a few months or for two years or more. In many cases the pain recurs at intervals as a result of

Fig. 2.—Skiagram of right knee of J. L—. (Taken by Dr. N. S. Finzi.)

exertion of the quadriceps muscle or of slight direct injury to the tubercle, either by a blow or by kneeling. Eventually the pain subsides, but a permanent enlargement of the tubercle may persist.

When the condition has once been seen the diagnosis of subsequent cases is obvious. But enlargement of the tubercle of the tibia may be mistaken for tuberculous disease in this part of the head of the tibia, or for syphilitic periostitis. These should be ex-

cluded by the exact localisation of the swelling, and by the absence in the skiagraph of a cavity (in the case of tubercle) and of periosteal new bone (in the case of syphilis).

Treatment must be symptomatic, consisting of rest of the knee, particularly from any severe action of the quadriceps, by the use of a back splint during the painful stages. A local anodyne such as lin. belladonnæ or counter-irritants may also be used. As a rule the

Fig. 3.—Skiagram of an adult with old-standing enlargement of the tubercle of the tibia. (Taken by Dr. Pirie.)

pain rapidly subsides and in a few months the knee may be used as freely as ever although the swelling persists. In one case, however, the pain was still considerable after two months' treatment in plaster-of-Paris. The permanent enlargement of the tubercle remaining is of no importance.

The original theory that these are instances of separation, partial or complete, of the tubercle of the tibia will not account for all cases.

Some cases are bilateral, some are ascribed to one or more direct injuries or to occupations requiring kneeling, and in some no history of any sort of injury can be obtained. The additional spicules of bone formed over the tubercle are actually embedded in the ligamentum patellæ or in the cartilaginous epiphysis.

J. A—, a boy, aged 14 years, fell on his left knee, and six months later attended hospital on account of pain and swelling. The skiagraph showed that the tongue-like process from the head was absent; a separate ossific patch lay well down in the tubercle and was fissured across. The diagnosis of tuberculous disease was made and an exploratory operation performed. The epiphysis was found to consist of a large mass of cartilage in which the small ossific masses were embedded; the cartilage was firmly attached to the diaphysis. No disease was found. Plaster-of-Paris was applied for two months and then removed. The pain, however, continued for seven or eight months and then gradually subsided.

These facts, together with the subsequent appearance of small additional spicules of bone, seem to indicate that the condition is probably a chronic inflammatory process, due to slight injuries of varying nature, and leading to inflammatory enlargement of the cartilaginous tubercle and irregularities in its ossification. The two types seen in skiagraphs probably represent the same process occurring in two different types of ossification of the tubercle. But it is clear that our knowledge of the ossification of the tubercle of the tibia is imperfect, and requires to be studied further by means of skiagraphs of adolescents.

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A RETROSPECT OF OTOLOGY, 1910.

By Macleod Yearsley, F.R.C.S.
Senior Surgeon to the Royal Ear Hospital, etc.

The papers upon otology bearing upon the diseases of children have been fairly numerous this year, and those of most value are given in the following short retrospect:

In the department of *anatomy and physiology* the most important contributions are those by Frazer on the early development of the

Eustachian tube and naso-pharynx (B. M. J., October the 15th), and Scott on the physiology of the human labyrinth (L., June the 11th). *Clinical investigation* has been represented by White and Zlotz on the cytology of chronic middle-ear discharges (Lgsp., May), Maschke, who insists upon the importance of routine otoscopy in the febrile affections of infancy and early childhood (C. M. J., June), and Kyle (Lgsp., January), who points out that there are individual physiological differences in hearing as in sight, and that these must not be confounded with pathological deafness. Howell Evans's paper (B. J. C. D., November) on auricular and peri-auricular dermoids discusses the origin of some tumours of the external ear. *Acute otitis* is discussed as to its ætiology by Neumann and Ruttin (A. f. O., Bd. lxxix, Heft 1 and 2), and Bourguignon (A. I. L. O. R.) considers pouching of the tympanic membrane occurring therein.

Middle-ear suppuration and its complications calls, as usual, for a good deal of attention. Vaccine therapy has been written upon by Dwyer (N. Y. M. R., July the 30th), Reik and Randall (Lgsp., September), Mather Sill (N. Y. M. R., August the 6th), and Nagle (J. of L., December). Barr and Rowan (B. M. J., March the 26th) continue their researches upon optic neuritis in suppurative otitis, and Mathewson (D. M. M., September) writes on mastoiditis in infants. Several very interesting cases have been recorded, as, for example, one by Lindley Sewell (L., January the 1st) of chronic suppurative otitis media in a little girl with a labyrinthine fistula and spontaneous nystagmus, one by Scott of streptococcic lateral sinus thrombosis with early pulmonary metastasia in a child, aged 11 years (J. of L., December), and a note on brain abscess formations, including the case of a child, aged 7 years, by MacCuen Smith (Lgsp., August). The treatment of that most terrible of all otitic complications, acute meningitis, has been dealt with by Dench (A. J. M. S., February), and by Barr (B. M. J., November the 26th), who suggests the practicability of treating the condition by means of lavage of the cerebro-spinal subarachnoid spaces.

The subject of *ear complications in general diseases* has also provoked some notice during the year. Banks Raffle (S. H., February) has opened new ground in a note on middle-ear disease as a complication of whooping-cough, and Biggs (B. M. J., July the 30th) has related a case of lateral sinus thrombosis in which the Klebs-Loeffler bacillus was present. An important discussion upon aural tuberculosis in children (B. M. J., November the 26th) was opened by Milligan at the annual meeting of the British Medical Association in London, and Marriage (J. of L., December) has described the

removal of a large tuberculous polypus from the middle ear of an infant, aged 7 months. Another important discussion was held in the Otological Section of the Royal Society of Medicine (J. of L., November) upon syphilis in relation to otology, in which views were expressed by West, Whitehead, McKenzie, Yearsley, McDonagh, Pritchard, Scott, Nourse, Davis, Waggett and Cheatle. Mayer (A. f. O., Bd. lxxvii, Heft 3 and 4) has also recorded his researches in the pathogenesis of congenital syphilitic deafness.

Deaf-mutism has similarly received a large share of attention. An important symposium upon deaf-mutism was held in America, in which Kerr Love, amongst others, took part (Lgsp., October). Urbantschitsch has discussed the ætiology of deaf-mutism (J. of L., December), and Macleod Yearsley the part played by congenital syphilis in the acquired form of the condition (J. of L., April and May). Ruttin (J. of L., December) and Albert Gray (J. of L., May) have both contributed to the pathological anatomy of deaf-mutes. Scripture (N. Y. M. R., July the 23rd) is responsible for some remarks on deaf-mutism, and Macleod Yearsley for the results of an examination of 500 cases in the London County Council Schools, published in the report of the Council's Education Committee. Finally the question of the age at which the education of the deaf child should commence was discussed by Macleod Yearsley at the School Hygiene Congress in Paris (B. J. C. D., October).

At the School Hygiene Congress held in Paris this year some important papers dealing with otological subjects were read, but have not as yet been published. A new journal, 'School Hygiene,' made its appearance on January the 1st, and its February number contained a lecture upon the ear and nose in school medical inspection by Macleod Yearsley.

Other papers that cannot well be classified but which require noting as having appeared during the year are: An interesting case of sarcoma of the petrous bone in a child, reported by Bowen and Carlyll (B. M. J., June the 25th), and papers by Randall (A. J. M. S., July) upon How far is heredity a cause of aural disease? Macleod Yearsley on the duty of the general practitioner to the deaf child (L., September the 10th), and Emerson on the responsibility of the general practitioner and the specialist in the prevention of deafness (B. M. S. J., March the 17th).

ABBREVIATIONS.

A. f. O.—'Archives für Ohrenheilkunde.'

A. I. L. O. R.—'Archives Internationales de Laryngologie, d'Otologie, et de Rhinologie.'

A. J. M. S.—'American Journal of the Medical Sciences.'
B. J. C. D.—British Journal of Children's Diseases.
B. M. J.—'British Medical Journal.'
B. M. S. J.—'Boston Medical and Surgical Journal.'
C. M. J.—'Cleveland Medical Journal.'
D. M. M.—'Dominion Medical Monthly.'
J. of L.—'Journal of Laryngology, Rhinology, and Otology.'
L.—'Lancet.'
Lgsp.—'Laryngoscope.'
N. Y. M. R.—'New York Medical Record.'
S. H.—'School Hygiene.'

Sixth Congress of Gynaecology, Obstetrics, and Paediatrics.

Held at Toulouse, September the 22nd—27th, 1910.

SECTION OF PÆDIATRICS.

Curable Forms of Acute Tuberculosis in Children.—MM. Aviragnet and Tixier described three forms: (1) Those in which the disease is localised (*a*) in the serous membranes, (*b*) in the viscera—especially the heart, in which it may leave valvular lesions—the kidneys, and lungs; (2) forms with multiple foci; (3) forms without obvious localisations (typho-bacillosis of Landouzy), which might follow an acute, subacute, or fulminating course. Tuberculous invasion in these cases occurs as a rule by the lymphoid tissue of the naso-pharynx with a latent localisation in some groups of lymphatic glands, usually those of the mediastinum. Affection of these glands often does not become apparent until after a febrile period of several weeks. Tuberculous infection of the tracheo-bronchial glands causes the following series of symptoms: (1) Broncho-pulmonary symptoms, viz. modification of the vesicular murmur at the right apex, asthmatic attacks, localised bronchitis and pulmonary congestion. (2) Lymphatic symptoms, consisting in transient enlargement of the cervical axillary and inguinal glands. (3) Hæmopoietic symptoms, such as diminution of the red cells and moderate leucocytosis. Enlargement of the glands is one of the most valuable signs of latent tuberculosis. The most efficacious treatment is a methodical superalimentation and continuous open-air treatment in a sea climate.

Typhoid Fever in Infants.—M. Achard recorded two cases, in one of which the infection had been conveyed directly by the mother, who died of ataxo-adynamic typhoid fever, and in the other it had been conveyed indirectly by a nurse who looked after the child and typhoid cases at the same time. Mothers suffering from typhoid might suckle their children provided they did not attend to the child in any other way. Typhoid fever in an infant, being easily overlooked, might be the cause of an epidemic in adults.

Hypertrophic Pyloric Stenosis.—MM. Fredet and Guillemot.—This condition is relatively rare according to Ibrahim. There are 598 cases on

record. Anglo-Saxon races seem predisposed and the Slav and Latin races comparatively immune. Boys are more frequently attacked than girls. The characteristic symptom appears about the third week after birth and consists of vomiting, which at first is frequent and scanty, and later very abundant and seldom. Histologically there is an increase in the number of muscular fibres in the two layers of the muscular coat. Inflammatory lesions are secondary and inconstant. The authors reject the theories of hypertrophic spasm and inflammatory neoformation, and adopt the theory of congenital malformation. Treatment should at first be medical, and when that fails, and from the first in cases of large pyloric tumour with much gastric dilatation and marked peristalsis, operation should be performed. The operations of choice are pyloroplasty and gastro-enterostomy. The simplest and best method of pyloroplasty is the extra-mucous operation, which consists of longitudinal incision of the pyloric tumours without incising the mucosa. Gastro-enterostomy has been performed eighty-six times with forty-four deaths. It has the advantage of suiting all cases, but it is difficult to carry out.

Congenital Megacolon.—M. Patel had collected 223 cases, 200 of which had come to operation or autopsy. The cases reported in the fœtus were doubtful. The condition first appears in infancy, most frequently in the male sex. The dilatation may be complete or partial; in the latter case it is almost always localised in the sigmoid flexure. Three theories have been suggested for its origin: (1) Congenital malformation (Hirschsprung); (2) primary alteration of the wall (Walker, Concetti); (3) mechanical obstruction and congenital constipation (Marfan). M. Patel adopted Hirschsprung's theory. Operation consists in colopexy, colostomy, the formation of an iliac or cæcal anus, entero-anastomosis and resection. Entero-anastomosis is employed in complete dilatation and consists in uniting the ileum to the sigmoid flexure. Resection is reserved for dilatation localised to the sigmoid flexure. It is always fatal below the age of two years and seems less dangerous when performed in several stages than at once.

M. Boeckel (Strasburg) recorded the case of a child, now aged 9 years, and in good health, in whom he had resected 29 cm. of the large intestine at a single operation for partial dilatation at the age of two years.

M. Froelich (Nancy) had kept four cases of megacolon in a satisfactory state for ten or twelve years by medical means only.

M. Hartmann (Paris) had performed an ileo-rectostomy with unilateral exclusion of the intestine on a case of megacolon. Death occurred some days after the operation.

Imperforate Anus in a New-born Child treated by the Abdomino-perineal route.—MM. Remy and Bloch-Wormser recorded a successful case. During the first few weeks after the operation dilatation was necessary to prevent any rectal stenosis. The child was now aged 8 weeks, and showed no trace of a cicatrix on rectal examination. M. Wormser laid stress upon the easiness of the operation and the tolerance of laparotomy in the new-born.

Congenital Torticollis.—M. Couvelaire, from the examination of six cases concluded that this was due to a primary myopathy determined by infections and diseases in the parents such as syphilis or plumbism.

Congenital Absence of Spinous Processes and Congenital Scoliosis.—M. Gourdon (Bordeaux) showed a case of left congenital scoliosis localised in the lumbar region in which the X rays showed the presence of a supplementary sixth lumbar vertebra. There was also complete atrophy of the tenth, eleventh and twelfth dorsal vertebræ. In spite of these malformations the scoliosis did not become apparent until the age of fifteen years.

Congenital Absence of Fibula.—M. Dieulafé (Toulouse) showed skiagrams of congenital absence of both fibulæ. On the right side there was a very short tibia without an upper epiphysis; on the left side the tibia was unusually long and showed atrophic lesions, which constituted the first degree of an intra-uterine fracture.

Ophthalmia Neonatorum.—M. Terson (Toulouse) recommended protargol and argyrol at the onset of severe attacks.

Eczema in Infants.—M. Rocaz.—In addition to digestive disturbances and arthritic heredity the glands of internal secretion, especially the thyroid play a part in the ætiology. The eruption may be complicated by a secondary infection constituting impetiginous eczema and be followed by renal, broncho-pulmonary, asthmatic, and intestinal complications. Sudden death may succeed the rapid disappearance of the eruption. Appropriate diet should be ordered, and external treatment applied with caution. Sea-water has not proved so successful as Variot and Quinton found, and in any case should be reserved for the protracted forms. Thyroid medication in grave cases gives excellent results; it should be given in doses of 5 cgrm. daily, gradually increased until 10 or 15 cgrm. are reached.

Hysteria in Children.—Prof. Rémond (Metz) and M. Voivenel (Toulouse) quoted several cases, and pointed out the relation between hysteria and dementia præcox. Charcot had formulated the rule that the hysteria of the child does not persist, because the conditions favourable for its development in early life disappear in the ordinary course of development. These conditions are: (1) The preponderance of the alimentary canal in the child, hence its *rôle* in the ætiology and symptomatology of infantile hysteria (anorexia, gastralgia, uncontrollable vomiting, peritonism, etc.) (2) The preponderance of the sympathetic nervous system. This explained the intensity of vaso-motor phenomena. (3) The instability of the pyramidal system, which was exemplified by convulsions and contractures on the one hand, and by paralyses on the other. (4) The feeble development of the association fibres in relation to the projection centres and relative independence of the latter. This accounted for the frequency of monosymptomatic forms, the influence of suggestion, and the *rôle* played by subconscious ideas.

London and Provincial Societies.

THE ROYAL SOCIETY OF MEDICINE.

SECTION FOR THE STUDY OF DISEASE IN CHILDREN.

Friday, November the 25th, 1910.

Dr. E. CAUTLEY, *President, in the Chair.*

Morphœa in Band Form in a Girl, aged 5 years.—Dr. J. L. BUNCH.—Three years ago the child fell and bruised her forehead. Shortly afterwards a patch of sclerodermia appeared on the right temple, gradually spreading upwards on to the scalp and downwards on to the nose. Over the affected area the hair had disappeared and the skin was tense and atrophic.

The PRESIDENT discussed the case.

Splenic Enlargement.—Dr. E. CAUTLEY showed a boy, aged 6 years, whose family history was good and free from tubercle and syphilis. Three weeks previously he had pain and swelling in the ankles of two days' duration, followed by pain in the knees. The eyelids were puffy and œdematous, especially on the right side. The feet were puffy on the dorsum, and the ankles and feet blue and cold. The urine was normal, and the swelling quickly subsided. The spleen was considerably enlarged and the liver slightly so. The blood showed a leucopenia. The case was possibly an early splenic anæmia or the remains of anæmia splenica infantum.

Dr. SUTHERLAND suggested a diagnosis of tuberculosis, and Dr. H. D. ROLLESTON one of syphilis.

Mr. MILNER BURGESS and Dr. CARR also spoke.

Extensive Necrosis of the Lower Jaw in a Girl, aged 7½ years.—Mr. H. S. CLOGG.—Two months previously the child had toothache and swelling of the lower part of the face and submaxillary regions. The two lower central incisors fell out and the child became very ill, the temperature rising to 103° F. The mouth could be opened to half an inch only; the tongue was swollen and the tissues in the floor were indurated. The teeth in the lower jaw were loose and some carious. On the gum and lower lip were large grey sloughs and a copious purulent discharge, and the alveolus in the incisor region was extensively exposed. The loose and carious teeth were removed and the mouth was irrigated with antiseptics. For two days there was little improvement, and as the pus yielded a pure streptococcus 10 c.c. of serum were injected with marked benefit. Four further injections caused a fall of the temperature to normal on the tenth day. The child rapidly improved in health, but the sequestrum was still firmly attached.

Dr. J. D. ROLLESTON thought that the condition was suggestive of Vincent's ulcero-membranous stomatitis, which he had seen occur after scarlet fever and followed by necrosis of the jaw.

The PRESIDENT had seen only one such case and that followed measles.

Patent Ductus Arteriosus with deficient Interventricular Septum.—Dr. T. R. Whipham showed a girl, aged 11 years, in whom there was a history of cardiac distress since infancy. The child was undersized; she presented no "clubbing" of the fingers and only occasional cyanosis. The dulness of the heart and great vessels was increased to the left. The heart's impulse was wavy and at the apex a blowing systolic murmur was audible. Over a localised area in the pulmonary region there was a continuous thrill and a loud "churning" rumble extending throughout systole and diastole. There were no signs of enlarged glands.

Nævus Verrucosus Linearis in a Boy, aged 3½ years.—Dr. Parkes Weber.—The skin of the trunk, neck and extremities was largely affected with a condition of pigmented and verrucose nævus, the distribution of which in lines and patches was typically "segmental" or "zoniform." The abnormality began when the child was seven months old.

The President thought that the name "ichthyosis" was more appropriate.

Congenital Transposition of the Viscera in a Girl, aged 10 years.—Dr. Parkes Weber.—Clinical signs and a skiagram showed a complete transposition of the large viscera. There was a systolic murmur at the base of the heart.

Rheumatoid Arthritis in a Boy, aged 13 years.—Dr. F. Langmead.—The condition began two years ago, and the hips, knees, ankles, elbows, wrists and hands had been affected. The axillary glands were slightly enlarged, but no enlargement of the spleen had been detected. Skiagrams showed that the enlargement of the joints was peri-articular. Vaccine therapy, the vaccine being prepared from the culture of an organism found in a tooth-socket, did not modify the temperature, which varied between 97·5° F. and 99·8° F., or the opsonic index. Improvement, however, had been brought about by treatment with thyroid extract, which was given on account of the mother having had myxœdema for fifteen years. The only evidence of the disease left was some fixation of the hips. An excised gland showed no evidence of tuberculosis and yielded no bacterial growth.

Dr. Porter Parkinson had not seen any good effects from thyroid or various sera in such cases. The most useful drug for reducing temperature and pain was salicylic acid.

Dr. H. D. Rolleston remarked that the question had been raised whether Still's disease was not a tuberculous condition. Tuberculous conditions were often improved by taking thyroid extract.

Dr. T. R. Whipham doubted whether enlargement of the lymphatic glands and spleen were a necessary accompaniment of the so-called Still's disease, and Dr. Spriggs thought that such enlargements depended upon the acuteness of the disease and the age of the patient.

Mr. Milner Burgess and Dr. Garrod also spoke.

Malformation of the Heart.—Dr. F. Langmead showed a male infant, aged 8 months, who was cyanosed, but did not show any appreciable "clubbing" of the digits. The heart was enlarged to the left, and a systolic bruit could be heard all over the chest, but especially along the left sternal margin, the point of maximum intensity being at the xiphi-sternal junction. The murmur was accompanied by a thrill.

The President considered that there was a perforated septum and

possibly transposition of the aorta and pulmonary artery, or that the aorta arose in part from the right ventricle.

Dr. Higgs thought that the lesion was pulmonary stenosis without perforation of the septum, as the murmur could not be heard in the back.

Old Healed Tuberculous Disease of Knee-joint with Increase in Length of the Limb.—Mr. O. L. Addison.—The boy first had signs of tuberculous disease of the knee in 1906. He was treated for six months with splints, and afterwards was allowed to get about with a Thomas's splint. For the last eight months he had been walking about and was free from recurrence. Movement in the joint, which at first was limited, was almost perfect, but the leg was one inch longer than the other, the femur and tibia being each half an inch longer. Skiagrams showed increased translucency of the tibial and femoral epiphyses with some irregularity of outline.

Mr. Mummery thought that the lengthening was due to the inactivity and enforced rest of the limb during the most rapidly growing period of life, and that the difference would in time diminish.

Sarcoma of the Femur in a Girl, aged 1½ years.—Mr. O. L. Addison.—The growth, which was in the right femur, had been noticed for two months, and did not appear to penetrate the bone (X rays). The liver and spleen could both be felt, and there were a few small glands in the left groin. It was not proposed to operate.

Interstitial Hernia in a Boy, aged 2 years, who had been operated upon for Left Inguinal Hernia.—Mr. O. L. Addison.—There was a subcutaneous hernia of the size of a pigeon's egg above Poupart's ligament on the same side and the left testicle was undescended.

Cardiolysis for Adherent Pericardium in a Boy, aged 6 years.—Dr. G. A. Sutherland.—Eleven months ago the patient was admitted suffering from subacute rheumatism and rheumatic nodules. Until this time heart trouble had never been suspected. There was marked bulging in the præcordial region and a heaving impulse over a large area. The heart was greatly enlarged and a double murmur was heard in the mitral area, the systolic part being of a musical quality and conducted well into the axilla. The boy became a chronic invalid from the heart affection, which was diagnosed as adherent pericardium with dilatation and hypertrophy. Six months ago Mr. Clayton Greene removed parts of the cartilages of the fourth to seventh ribs at the sternal junction to allow more freedom of action for the heart. Since then the boy had had one attack of cardiac failure, but on the whole he had been better and much more active.

A Paper on Congenital Obliteration (or Congenital Atresia) of Bile-ducts with Hepatic Cirrhosis was read by Dr. Parkes Weber and Dr. G. Dorner (*vide* p. 1). The liver and microscopical sections from the case were shown.

Dr. H. D. Rolleston upheld the view that such conditions were caused by a descending cholangitis which led to the obliteration of the small bile-ducts, and were not due to a vice in development.

The President, Dr. Garrod, and Mr. Mummery also spoke.

THE SOCIETY OF MEDICAL OFFICERS OF HEALTH: METROPOLITAN BRANCH.

November the 25th, 1910.

The Antitoxin Treatment and Prophylaxis of Diphtheria.—Dr. E. W. Goodall commented on the recent Local Government Board order which sanctioned the provision by the Councils of the Metropolitan Boroughs of a temporary supply of diphtheria antitoxin as a prophylactic and curative agent for the poorer inhabitants of these districts. He advocated the immediate administration of antitoxin in undoubted cases of diphtheria in doses varying from 2000 to 20,000 units. Half the amount should be repeated the next day if there was the slightest increase in the severity of the symptoms. Few cases were benefited by doses of over 20,000 units. Children should receive larger doses than adults. Antitoxin should not be employed indiscriminately in all doubtful cases, but only in those cases of laryngeal obstruction without obvious cause or in faucial angina of obscure nature accompanied by marked constitutional disturbance. In patients over ten years of age antitoxin might be withheld until the disease had been diagnosed definitely. Dr. Goodall deprecated the wholesale employment of antitoxin as a prophylactic owing to the occurrence of serum phenomena and subsequent risk of anaphylaxis.

CLINICAL SOCIETY OF BATH.

November the 4th, 1910.

Adrenal Hæmorrhage in an Infant.—Dr. Rupert Waterhouse showed the two adrenals, deep purple in colour, evidently as the result of hæmorrhage into their substance, of a male child, aged 8 months. Well nourished and previously perfectly healthy, the child had, on the morning of October the 30th, appeared drowsy and out of sorts, but had taken nourishment well and had not seemed to be in pain; in the afternoon it vomited and was taken to the Royal United Hospital, obviously very ill. Its temperature was 100·4° F., pulse 140, respirations 72. Râles could be heard in the chest, especially at the bases behind. Two hours after admission a blotchy hæmorrhagic eruption appeared on the trunk, arms, and thighs, and two hours later the child died, cyanosed.

At the autopsy the adrenals and skin were as described. No other noteworthy changes were found beyond congestion and œdema of the lungs. Microscopical examination of the adrenals showed that whilst bleeding had occurred into both cortex and medulla, the latter had suffered most, its structure being completely destroyed and replaced by effused blood. Cultures from the adrenals, spleen, and cerebro-spinal fluid proved negative. The child had never been vaccinated. Its mother had had one other child and two miscarriages. Of fourteen similar cases in children below the ages of two and fifteen months collected from the literature by Dr. Waterhouse, no fewer than ten were unvaccinated, one was vaccinated and had good marks, and in the other three this point was not mentioned.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

October the 21st, 1910.

Cerebral Injury in an Infant, followed by Blindness.—Dr. Maxwell Telling.—A girl, aged 1 year, was admitted to the Hospital on August the 16th with the following history: A fortnight before she had fallen down a flight of stairs; she vomited immediately after and was unconscious for several hours. A hæmatoma was present over the right posterior half of the parietal bone. There were no other symptoms or signs, but the child had been unable to see since the date of the accident. After the hæmatoma subsided a linear fissure of the parietal bone, about three inches long and about half an inch wide at its middle, was detected. Through this there was bulging whenever the child cried or strained. On admission to the Hospital the edges of the fissure were a little thickened. On admission there was absolutely nothing abnormal to be made out other than that the child could not see. All the pupil reactions were normal. Fundi normal. The fissure gradually narrowed. On August the 27th, nearly a month after the accident, the bulging through the fissure had practically ceased. About a month later vision began to return, the child having a slight perception of near objects. She was discharged on October the 8th with the fissure nearly closed and obviously a very considerable amount of visual power. For at least the first month ofter the accident there was total blindness, so far as it was possible to determine in an infant of this age. There was no depression at the edges of the fracture. The question was raised as to whether the fissure might not have been present before the accident, having been due to some irregular development of the parietal bone. Clearly there must have been some damage to the visual centres, probably in the nature of subpial hæmorrhage.

A Case of Transient Rotary Nystagmus after a Fall.—Mr. Michael A. Teale showed a girl, aged 8 years, who was brought to the Eye Department of the Leeds Public Dispensary on March the 9th, 1909, having fallen down twelve of the house stairs on the previous day. She was not thought to have lost consciousness but was dazed after the fall and vomited, complaining soon afterwards of dizziness and double vision. When seen at the Dispensary no bruise or evidence of a blow could be found on her, but she was unsteady in her walk, had divergent strabismus periodically, paresis of the left internal rectus muscle, and marked bilateral rotary nystagmus in all positions of the eyes. The nasal half of each optic disc was swollen and hazy, while the retinal veins were much engorged. Both ears were normal. She was kept in bed for ten days, at the end of which time nothing abnormal could be found except the same condition of optic discs as previously noted and slight fulness of retinal veins. The nystagmus, paresis, divergence, giddiness and double vision had disappeared. There had been no headache throughout the illness, nor abnormality of pupil reactions. When seen again on October the 17th last she was quite well, but showed the same swelling of the nasal half of each disc, which, as measured by the ophthalmoscope, appeared to be about two-thirds of a millimetre more prominent than the temporal half. Each eye read $\frac{6}{6}$ and was free from hypermetropia.

Cutaneous Horn of the Left Upper Lid.—Mr. Michael A. Teale.—A child, aged 9 years, showed a horn, one third of an inch long, projecting from the centre of the margin of the left upper lid immediately above the margin. It was first noticed nine weeks previously and was curved in a forward and upward direction. The attached half was red and fleshy while the remainder was yellow and horny.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

November the 2nd, 1910.

A Case of Acquired Hydrocephalus cured by Opening of the Foramen of Magendie.—Mr. Cotterill and Dr. Bruce showed this case. The patient, when admitted to the Royal Infirmary, was a girl eleven years of age, suffering from severe recurrent headaches, vomiting, some impairment of sight, and a degree of optic neuritis. This condition had followed upon an acute cerebral attack in August, 1908, which was evidently of the nature of a posterior basal meningitis. While in hospital the patient's condition became steadily aggravated. There was a recurring loss of control of bowels and bladder; abolition, first of the left abdominal, and then of the right abdominal reflex; increasing weakness, first of the left leg, with increase of the deep reflexes and the Babinski sign, then a similar condition in the right leg, until walking became practically impossible. The mental faculties became more dulled, the blindness practically complete, the head enlarged, and the sutures were shown by radiograph to be separated. The muscles of the back and upper extremities also became paralysed.

Mr. Cotterill endeavoured to give relief first by puncture of the lateral ventricle through the separated right coronal suture. As this did not improve the patient's condition, it was decided to re-open the foramen of Magendie by removal of a large portion of the occipital bone.

The result has been a gradual diminution in the size of the head, gradual and almost complete recovery of motor power, sight, intelligence and control of the organic reflexes.

One remarkable feature, due probably to the free removal of the occipital bone, was the absence of external drainage of cerebro-spinal fluid.

ABERDEEN MEDICO-CHIRURGICAL SOCIETY.

December the 1st, 1910.

Sprengel's Deformity.—Dr. Alexander Mitchell exhibited a case of congenital elevation of the scapula in relation to the thorax and to the scapula of the other side. The patient, a girl, aged 7 years, had a high left shoulder. The scapula was higher and smaller than that of the opposite side, and rotated so that its angle lay further from the spine. The clavicle, arm, forearm and hand were all shorter than on the other side. Shoulder movements were distinctly limited, and at the elbow there was marked limitation of extension. Response to the faradic current was wanting in the lower part of the trapezius, the explanation probably being that the muscle was here replaced by fibrous tissue.

Philadelphia Pediatric Society.

Joint Meeting with the Section on Pediatrics of the New York Academy of Medicine, November the 8th, 1910, Charles A. Fife, M.D., President.

Nasal Diphtheria.—Dr. Edwin E. Graham read a paper on the symptoms, management and treatment of nasal diphtheria. He described diphtheritic and non-diphtheritic membranes. The symptoms of nasal diphtheria might be severe or mild. He spoke of the dangers of mild cases; the importance and duration of quarantine; necessity of bacteriology and animal inoculation; the association of nasal diphtheria with measles and scarlet fever; the necessity of hospitals for diphtheria cases; return cases; negative cultures; detention wards; and finally, the effect of anaphylaxis upon the treatment.

Dr. Rowland G. Freeman said that, although anaphylaxis was a real danger, he thought this fact should modify their use of antitoxin only by inducing them to use a very large initial dose, and so, if possible, avoid this danger which would exist in the administration of subsequent doses. Should, however, there be any indication for a subsequent dose, the danger of anaphylaxis was so small in comparison to the danger of diphtheria that this danger should not in any way modify their conduct. The occurrence of this phenomenon was certainly extraordinarily rare. The speaker could not recall a single case in his experience where such a reaction had occurred, although he mentioned two cases of infants who had received between 40,000 and 45,000 units in repeated doses with no bad reactions.

Dr. M. Nicoll, jun., said that in spite of the very general use of antitoxin as a measure of prevention, statistics showed that there was little or no decrease in the incidence of diphtheria, and he believed that a chief cause of this was the spread of the disease through the non-recognition of nasal cases, with few or no constitutional symptoms, and the lack of proper quarantine measures against actual cases, especially those that assume a chronic form. It was not generally known how very fatal acute nasal diphtheria often was in the case of young children, especially when it occurred as a complication of scarlet fever or measles. He referred to four children in adjoining beds recovering from scarlet fever who died as a result of nasal diphtheria. He regarded the latter form of the disease, when occurring under the conditions mentioned, as only secondary in severity to the laryngeal type. Dr. Nicoll objected to syringing the nares, believing that irrigation was much more effective, and if done under low pressure, less likely to force fluid into the Eustachian tubes. The patients should be well confined by means of a sheet firmly pinned about them and at first a few drops only of the solution introduced, and then, after the patient had a breathing spell, the irrigation continued until the anterior and posterior nares were freed. By this method plugs of loosened membrane could readily be removed. Normal salt solution heated to the body temperature was preferable to the various antiseptics recommended. In his experience, anaphylaxis might be disregarded as influencing the treatment. Dr. Nicoll showed a specimen of a typical nasal plug removed by irrigation, together with a photograph of the method of performing irrigation, showing the way the child was wrapped up in the Willard Parker Hospital.

Dr. B. Van D. Hodges said that they should remember that there were

diphtheria carriers, just as there were typhoid carriers. He referred to a recent outbreak of diphtheria in Plainfield, N.J., in which an unsuspected case of post-nasal diphtheria had probably acted as a carrier, causing the spread of the disease.

Dr. T. S. Southworth emphasised the value of enlarged cervical glands as a diagnostic symptom, especially in cases in which there was only slight nasal discharge. One of the commonest types of nasal diphtheria was that seen in marasmic infants, accompanied by some bloody or chocolate-coloured nasal discharge. This condition was often overlooked, especially in a ward. In the treatment of this condition, Dr. Southworth used a creamy suspension of stearate of zinc in albolene. Both discharge and bacilli disappeared rapidly under its use in the nose.

Dr. L. E. La Fétra asked Dr. Graham what he did with these chronic cases of nasal diphtheria in hospitals in whose cultures were found diphtheria bacilli which were non-virulent.

Dr. Graham answered that he considered it legitimate to allow these cases with non-virulent diphtheria bacilli to return home and to mingle with other children.

Some Anatomical Features of the Child's Thorax and their Practical Application in Physical Diagnosis.—Dr. George Fetterolf and Dr. J. Claxton Gittings demonstrated sections and dissections made of bodies of infants which had been injected with 10 per cent. formalin solution and frozen. They discussed the postural relations of the thymus, ribs, heart, lungs, and their various component parts.

Dr. David Bovaird, jun., said that the interest and instruction with which these demonstrations had been received showed that the curricula of most of our medical schools lacked a new and valuable course—one in applied anatomy. The application of anatomy to surgery was an old theme ; that it could be made to throw so much light on unsettled points in medicine was to most of them rather a revelation. The studies of Drs. Fetterolf and Gittings held so many facts of interest that it was quite impossible to do justice to all of them. Two applications of points made might be suggested. First, the demonstrated relation of the left innominate vein made it clear that one of the earliest effects of enlargement of the thymus must be pressure upon that vein with resulting cyanosis of the neck and face on that side. The fact that such cyanosis was notably absent in the clinical conditions associated with enlargement of the thymus, especially in the cases of thymus death, constituted a strong argument against the theory that these conditions were caused by mechanical pressure of the enlarged gland upon the trachea and neighbouring structures. Secondly, the relations shown to exist between the heart, the left lower lobe and the pulmonary veins served to explain some of the puzzling conditions found in the course of acute pericarditis with effusion. They were all familiar with the fact that many cases of such pericarditis presented certain physical signs over the base of the left lung posteriorly. These signs were usually accepted as due to pressure of the enlarged sac on the left lung near the root. But they often found that the signs of compression gradually changed to those of fluid in the pleura, and that on aspiration there was considerable serous effusion in the sac. This sequence of events was explained by the demonstration of the fact that the enlarged heart (or pericardial sac) would press not only on the lung but on the left pulmonary veins, and thus the serous effusion resulted from the mechanical obstruction to the return circulation.

Dr. G. R. Pisek spoke of the relations between the lobes of the lung and the chest-wall and its importance in thoracic surgery as well as physical diagnosis. He asked whether Dr. Fetterolf had found any changes in the relations of the heart and lungs as the infant grew to childhood—for instance, in children of three and five years of age.

Dr. Fetterolf answered that they had been unable to secure the bodies of elder children for comparison, but that they hoped to supplement the present work with future studies.

Dr. La Fétra said that Drs. Fetterolf and Gittings had shown most beautifully how the heart of an infant occupied most of the chest antero-posteriorly, and that this explained the dulness so commonly found upon deep percussion on the left side of the infant's back. They showed also very well the position of the right auricle in the fourth right interspace, thus confirming the statement of Lees that the enlarged right auricle could be made out by dulness in this situation and for one or two spaces higher on the right of the sternum.

Dr. Gittings said that Dr. Bovaird had probably misinterpreted their meaning. From the anatomical standpoint they noted two facts in regard to the thymus: first, that it reached back to the trachea at one level, and second, that the left innominate vein interposed between the trachea and thymus at a lower level. They advanced the theory that swelling of the left innominate vein, resulting in pressure on the trachea, might account for some of the cases of sudden death of children during anæsthesia. Preceding these deaths the cyanosis was often observed. In regard to direct pressure by the thymus on the trachea, they stated that it would seem that "sudden death might be caused by even moderate swelling of the gland." Although tracheal pressure failed to explain the symptomatology of most of the cases of so-called "thymus death," yet this anatomical relation furnished some ground upon which the advocates of the "pressure theory" could stand.

Albumin in the Urine of Normal Children.—Dr. S. McC. Hamill and Dr. K. D. Blackfan discussed the frequency and significance of albumin in the urine of normal children, after a long series of urine examinations. Chemical examination for bodies other than albumin was made; the stools were also examined. After discussing their routine, which showed a remarkable percentage of albumin in the urine of normal children, they discussed the significance of their findings. Reference was made to both serum and the so-called nucleo-albumins.

Dr. H. D. Chapin said that this paper confirmed the opinions held by many observers. Some years ago Dr. Chapin concluded that any bodily disturbance in infants was liable to be followed by the appearance of albumin in the urine. In a series of cases of gastro-intestinal, pulmonary and other diseases, a large majority of the children showed albumin and casts in the urine. Of 86 cases of gastro-intestinal disease, 75 had albumin and 37 both albumin and casts; 57 pulmonary cases had 49 showing albumin and 32 both albumin and casts; of 45 cases of general diseases, neither gastro-intestinal nor pulmonary, 31 had albumin in the urine. All of these cases came in routine practice and were not selected. Dr. Chapin, since that time, had regarded these findings as of no special significance.

Dr. John Howland said that these studies of Dr. Hamill and Dr. Blackfan have both a practical and theoretical interest. They showed plainly the very great frequency of albumin in the urine of perfectly healthy children. All realised that albumin with or without a few casts in an other-

wise normal child did not necessarily mean nephritis, but Dr. Howland doubted if any had recognised heretofore how very common a finding this was. It only showed that valuable information could be obtained from a sufficient number of careful examinations. Under ordinary circumstances they did not think much of an occasional trace of albumin, but after scarlet fever or diphtheria such a finding would occasion considerable concern. In such a position it would be comforting to know that albumin, especially that precipitated by 50 per cent. acetic acid, was regularly and almost normally present at some time. The theoretical interest attached to the question whether these might not be instances of alimentary albuminuria. It was possible to produce in men and animals by feeding them with excessive quantities of albumin an alimentary albuminuria just as it was possible to produce by sugar an alimentary glycosuria. Murlin was able to show that gelatinuria resulted after dogs were fed on large quantities of gelatin, and Fr. Müller stated that white of egg appeared in the urine after its excessive ingestion; but others had been unable to determine the character of the albumin that appeared. Clinical methods failed. Gideon Wells attempted to show it by anaphylactic experiments, but could get no evidence of the presence of any albumin but serum albumin. With children it was possible that the question might be somewhat different. The intestine and the kidney of the young were more permeable to foreign substances. This could be demonstrated for bacteria, and the interesting observations of Wile seemed to show that starch granules as such could be absorbed from the intestines, traverse three sets of capillaries, and be excreted in the urine. Recently Stecker had attempted to prove the presence of foreign proteins in the urine of children with albuminuria by precipitin tests. He obtained a precipitate with the serum of an animal immune to beef protein in about 25 per cent. of his cases, but precipitin tests were somewhat unreliable and could not be accepted as entirely conclusive. It would seem, however, that with the increased permeability of the child's intestines, there was a greater opportunity of foreign albumin being absorbed and excreted by the kidneys, and it would be interesting to see whether the albuminuria in such cases as Dr. Hamill had investigated could be entirely prevented by a temporary diet without meat, eggs, or milk.

Dr. Floyd M. Crandall said that the paper was in line with his own clinical experience. He had come to regard occasional traces of albumin in the urine of children, as shown by modern delicate tests, as of little clinical significance. He was, however, surprised at the frequency of such findings in the careful observations reported by the readers of the paper.

Dr. W. B. Hoag referred to a case of his, a boy born in the tropics, who had had malaria while there. He came to New York at the age of 6 years, and was apparently well. After over-exertion, followed by chilling, acute œdema with albuminuria and casts developed. He recovered, but now had distinct traces of albumin, but no casts nor questionable epithelium. He was now well and 10 years old. Dr. Hoag discussed the probable future of this patient. Was he to be considered a "normal child"?

Dr. E. H. Bartley considered the examination of the urine in children of great help in diagnosis. Traces of albumin were of slight significance following exertion, exposure to sudden changes of temperature, etc. Nucleo-albumin was normally found in the urine. The slightest irritation of the renal mucous membrane would increase it, and if persistent, would produce albuminuria. A positive test for nucleo-albumin only indicated a slight increase over the normal amount. There seemed to be no constant relation

between traces of albumin and the hyaline casts and cylindroids. Hyaline casts and cylindroids, therefore, had little diagnostic significance.

A Case of Rabies.—Dr. Alfred Hand, jun., Dr. C. Y. White and Dr. John Reichel reported a case of rabies, with autopsy and complete pathological findings. The autopsy report gave a general negative pathology. The Negri bodies were demonstrated in the central nervous system.

Dr. Reichel added that he had tabulated the pathological findings in nine suspected cases of hydrophobia, from which he had examined the spinal cords. In six of these cases there was proof that the patients had died of rabies.

Société de Pédiatrie, Paris.

October the 18th, 1910 (*Bulletin No. 7*).

Syphilitic Rickets and Serum Diagnosis.—MM. Leroux and Labbé read the notes of fourteen cases in which Wassermann's reaction was reported on by M. Levaditi, of the Pasteur Institute. Whenever symptoms of active congenital syphilis existed the serum diagnosis was positive. In the cases where the result was negative there were only signs of dystrophy and rickets. It seems that syphilitic rickets has no close relationship with active early congenital syphilis; that it sometimes develops later without early congenital syphilis; and that it depends more especially on general disturbances of nutrition developed under the influence of hereditary syphilis, *i. e.* that it is essentially a parasyphilitic dystrophy. Their conclusions confirm the opinion of Prof. Fournier, that rickets was syphilitic only in origin and not by nature, *i. e.* it was parasyphilitic.

Cerebral Abscess of Traumatic Origin; Cured by Operation.—MM. Triboulet and Savariaud showed a girl, aged 8 years, who, seven months previously, had sustained a fall on the head followed by profuse epistaxis. Gradually a slight degree of facial paresis developed and was followed by left hemiplegia. There was considerable cachexia; little or no rise of temperature. There had been three convulsive attacks. Trephining was performed, and three days later a quarter litre of pus evacuated. Recovery was complete.

Chloro-anæmia during the Course of Chronic Nephritis.—MM. A. Paisseau and Leon Tixier reported the case of a boy, aged 9 years, the subject of nephritis of scarlatinal origin, with acute exacerbations accompanied by anasarca, hæmaturia, and cardiac trouble. No improvement resulted from liquid diet, nor milk diet, nor a salt-free *régime* of flesh food. The disturbances only subsided when a hyponitrogenous diet was given. Two symptoms showed, however, no change—the albuminuria, and a condition of chloro-anæmia characterised clinically by a marked discoloration of the skin and mucous membranes and striking diminution of hæmoglobin in contrast with a normal number of corpuscles. Two interesting points were the character of the anæmia and its treatment. The hæmatological charac-

teristics of anæmia during the course of nephritis with dropsy are very variable; a severe type of pernicious anæmia has been observed, but almost always the type is much less definite, with a diminished number of red corpuscles and a variable globular value. Changes in the number of white corpuscles are also seen, and the absence of eosinophilia has been regarded as of serious prognostic import. Chloro-anæmia, on the other hand, is rare, and depends more upon the age of the subject than on the cause or anatomical form of the renal lesion. As regards treatment, milk has hitherto been regarded as a specific in this complication of chronic nephritis in young subjects and iron salts useless, if not harmful. Notwithstanding, a month's treatment with protoxalate of iron brought about the disappearance of the anæmia, whch the rational treatment of the nephritis by diet had been powerless to effect.

Purulent Meningitis (Tetragenous) treated by Lumbar Drainage for thirteen days.—M. Georges Rosenthal showed the instrument devised by him in a case he treated on this principle and which is figured in the 'Bulletin.'

Landry's Paralysis during an Epidemic of Anterior Poliomyelitis.—M. Schreiber described a case of Landry's paralysis in which there was found a diffuse acute myelitis with marked lesions in the grey matter and especially the anterior horns. Above, the lesions had involved the bulb and laterally had spread to the meninges. Clinically, the case presented all the classical symptoms of Landry's disease. This disease, at one time regarded as a morbid entity, tends more and more to be looked upon as a syndrome due to lesions which may be radicular or nervous, isolated or multiple, and associated or otherwise with changes in the meninges. The case is of great interest from the point of view of the relationship of Landry's disease with acute poliomyelitis. Inoculations of a glycerine extract of the bulb were made in a monkey but gave negative results, but the author thinks that the relationship of the two diseases is more than probable considering the epidemic which prevailed at the time. Vincent Dickinson.

Abstracts from Current Literature.

Medicine.

The future of congenital syphilitics (*'La Clin. Infant.,' October*, 1910, *No.* 19, *p.* 600).—**Hochsinger** communicated to the Medical Society of Vienna the results of his researches on syphilitic infants treated at the institute and followed after leaving during a number of years. Out of 516 births, 253 were still-born or died in a few days. Out of 263 who survived birth, 55 died before five years in spite of specific treatment. The first signs of syphilis showed themselves in 54 cases on the skin, in 200 in the nasal mucous membrane, 95 times in the bones, and 30 times in the viscera. Most frequently the earliest manifestations developed in several places at once, *i. e.* on the skin and nasal mucous membrane 134 times, in the skin, nose and bones 67 times, with associated visceral lesions in 26 cases, in the skin, nose and viscera 24 times, in the nose and bones twice. The nose alone was attacked 7 times, the skin alone 3 times. Syphilis beginning

in the bones and viscera was especially seen in living first-born infants; in later children the manifestations were less serious, without osseous or visceral lesions. In the second infants of syphilitics, cutaneous and nasal lesions were noticed in 68 per cent.; in third children 73 per cent.; while in first-borns these affections only occurred in 33·6 per cent. The earlier infants are as a rule much more seriously attacked than the later ones. Affections of the central nervous system and viscera, especially the liver, have the worst prognosis. Out of a given number of infants with syphilitic hydrocephalus, 16 recovered and 3 died. In 17 per cent. of the cases there was paralysis caused by osteo-chondritis or by luxation of the epiphysis. They generally yield under the influence of specific treatment. Congenital syphilitics show a marked predisposition to rickets, but without marked deformity. The large fontanelle ossifies more rapidly than in the non-syphilitic rachitic. The result of the early cranial synostosis is seen in prominence of the frontal and parietal bosses. Among the 208 cases of congenital syphilis that were followed up over a long period, 113 turned out mild, 56 of average gravity, and 39 serious. Relapses occurred in 40 of the mild cases, in 56 of the average, and in 32 of the serious. Specific treatment was ineffective in more than half the cases in preventing relapses, which were absent in only 37 per cent. of the cases. Of infants in whom treatment was not commenced until three months after birth, not one was free from a relapse. When treatment was begun before the end of the third month relapses only occurred in one third of the cases. In first-borns relapses were more serious and more frequent (73 per cent.) than in other children, 45 per cent. for second, and 38 per cent. for third children. It should be noted that among first-borns the number of relapses was also greater (4 or 5 against 3 among other children). In 31 out of the 134 families observed the children had no relapses; none of the mothers presented signs of syphilis. and 21 fathers had undergone specific treatment before the procreation of the first child. In 30 other families with maternal syphilis, 65 infants were born alive of which 58 had relapses. Thus maternal syphilis furnished the largest amount of relapses. In private practice relapses are extremely rare during the first year, the syphilitic parents having undergone efficient treatment. Cutaneous manifestations are more serious during the course of relapses when the child is older. Above the age of 6 years gummata are frequent in the bones, most frequent in the tibia. In cases of delayed syphilis lesions of the nasal mucous membrane and larynx, viscera, circulatory system are noticed, but rarely, also, hyperplasia of lymphoid tissue and gummata of the glands. As persistent stigmata may be noticed general disturbance of development, cutaneous scarring, deformities of the skull and nose, Hutchinson's teeth, and ocular mischief. It is especially when syphilis has been serious that it leaves stigmata of this kind. Among a number of congenital syphilitics Chvostek's sign is found between the ages of 3 to 10 years; such children are often subject to headaches on which specific treatment has no influence. Wassermann's reaction was tried in 26 children over 5 years of age; it was positive in 12 cases of evident syphilis, and in 3 out of 6 old cases without symptoms. However, in 8 children free from syphilis it was positive in 3 instances. Out of these 208 children 51 are quite healthy now, and it may be therefore concluded that 25 per cent. of children born of syphilitics may develop into healthy men and women. VINCENT DICKINSON.

Hereditary syphilis and Wassermann's reaction (*'Rev. de Méd.,'* 1910, *pp.* 395 and 757).—**Bertin** and **Gayet.**—This paper is based on the

study of 328 cases, which the authors divide into three groups: (1) 25 children with well-marked signs of hereditary syphilis; in all but one the reaction was positive; (2) 255 children, either healthy, or affected with some other disease than syphilis, in whom the reaction was negative; (3) 48 cases in whom the symptoms were suggestive without being absolutely pathognomonic of hereditary syphilis. In all these the reaction was positive. In this group are included cases of infantilism, epilepsy, deaf-mutism, and other cases whose symptoms might have been attributed to tuberculosis or alcoholism. The authors draw attention to the rarity in their cases of an association of the pathognomonic features of hereditary syphilis. Thus in only two cases was the complete Hutchinsonian triad present.

J. D. Rolleston.

Syphilitic (congenital) myocarditis and arteritis (*'Allg. Wien. med. Zeit.,' May* 17, 1910, *p.* 224).—**Bauer** described a case in a girl, aged 13 years, who had suffered for some years from palpitation, and pain in the legs. The patient showed pigmentation at both angles of the mouth, periostitis on both tibiæ, and slight enlargement of the spleen. There was dilatation of the left ventricle, bradycardia with increased tension. Wassermann reaction positive.

M. D. Eder.

Heredo-tuberculosis (*'New York State Journ. of Med.,' March*, 1910, *p.* 128).—**J. L. Archambault** maintains that the view should not yet be given up, that tuberculosis may be in certain cases a congenital disease, an *intra-partum* as well as an *extra-partum* infection. His paper is almost entirely based on the work of **Hans Rietschel** (*'Jahrb. f. Kinderheilk.,'* 1909, *vol.* xx, *fasc.* 1, *p.* 62). He also discusses the questions—Is an infection of the placenta at the seat of some tuberculous lesions necessary for the transmission of the tuberculous infection from the mother's organism to that of the child? and, Cannot transmission be affected along with the multiple biologic exchanges occurring all through the *intra-partum* life from one organism to the other, by means of the blood-stream, regardless of any definite local alteration? He points out that the facts are not numerous enough to settle the questions definitely, but there is no denying that they re-open the controversy as to the existence or non-existence of hereditary tuberculosis.

James E. H. Sawyer (Birmingham).

Two cases of congenital tuberculosis (*'Zentrlbl. f. Kinderheilk.,'* 1910, *p.* 321).—**E. Gergely.**—The first child lived twenty days, and the second fifteen days; both presented the appearances of miliary tuberculosis. The mother of the first child died of miliary tuberculosis, and the mother of the second had catarrh of the right apex. Up to 1903 only twenty similar cases had been recorded.

J. D. Rolleston.

Tuberculosis in sucklings (*'St. Petersburg. med. Woch.,' June* 5, 1910, *p.* 317).—**Ettlinger** gives much statistical information derived from the foundling hospitals of St. Petersburg and Moscow. In 10,065 necropsies (1877–79), 53 cases were found; in St. Petersburg from 1872 1907 there were yearly 1121 necropsies and 57 cases of tuberculosis. The prognosis is absolutely bad and the treatment is purely symptomatic; its success *nil.*

M. D. Eder.

The teeth as a point of entrance for the tubercle bacillus (*'Journ. of Amer. Med. Assoc.,' August* 6, 1910, *p.* 495).—**Moorehead** reports a series of

ten cases, chiefly in children, in which tuberculous lymphadenitis occurred as a result of infection through carious teeth, tubercle bacilli being found either in the cavities or in the sockets of the teeth. Starck has recorded three such cases. Zanby has collected forty cases of tuberculosis of th alveolar process in which the bacillus gained entrance either through the pulp canals or "spaces between the teeth," and Cook nine others. The teeth in children seem to be an important source of infection which is often overlooked.

T. R. Whipham.

The relation of the tonsil to tuberculous adenitis (*'Med. Record,'* II, 1910, *p.* 515).—**F. S. Matthews** points out that the fact that the tonsil could be entirely removed without serious consequence to the individual was no argument for or against the usefulness of the normal tonsil. What is wanted to be known is: Are the tonsils uniformly, occasionally, or usually a source of tuberculous adenitis? After quoting other writers, the author gives his own results with the tonsils of sixty children. Over fifty of these were whole tonsils of all sizes and shapes. Not one of fifty-five showed any evidence of tuberculosis. In four cases suffering from tuberculosis of the cervical glands the tonsils showed signs of the disease.

Macleod Yearsley.

Idiosyncrasy to cow's milk in infants (*'Med. Klin.,' July* 24, 1910, *abst. 'Journ. A.M.A.'*).—**Zybell** has found records of twenty-three cases of actual idiosyncrasy to cow's milk and adds three of his own. Only one case has been fatal. In the others the symptoms have subsided on stopping the cow's milk and feeding with small amounts of breast milk. The writer thinks that the idiosyncrasy is the result of some constitutional anomaly, and this view is supported by the fact that several members of the same family or different generations may show the same tendency. Even an hour or two after taking cow's milk the temperature may rise to 104° F. and over. In the fatal case reported the fever kept up for nine days, terminating at 106° F. With the fever the child looks collapsed, the skin is pale and cool or cyanotic and the respiration shallow and rapid, the sign suggesting an intoxication, but as a rule subsiding after a few hours. Gastro-intestinal disturbances are common and occasionally an eruption occurs. The patients ranged from nine to forty-two weeks old. The idiosyncrasy in all but one case has been overcome by the cautious administration of very small quantities of milk and disappeared as abruptly as it developed. The exception is a girl, aged 15 years, who is still unable to take even the smallest quantity of milk.

T. R. Whipham.

Lactose in the dietary of infants (*'La Clin. Infant.,' August*, 1910, *No.* 16, *p.* 481).—**M. Variot** criticises the results of Pehu and Porcher with regard to the value of lactose as a food (*'Rev. d' Hyg. et de Méd. Inf.,'* IX, 1910). He considers that it may have laxative properties due to lactic fermentation in the digestive track. But if it is used as a drug in certain infants who are constipated it does not follow that it should be recommended as a daily food, since the idiosyncrasies of infants towards lactose are such that even in small doses it is sometimes purgative. It is far inferior to saccharose, which can be easily obtained pure as it is crystallised, while lactose often has a disagreeable odour owing to impurities, and costs double as much. He considers that lactose should be only used as a drug, and requires careful handling as such when given to constipated infants.

Vincent Dickinson.

Lactose and lactic acid in the stools of children suffering from green diarrhœa (*'La Clin. Infant.,' August*, 1910, *No.* 15, *p.* 449).—**P. Lavialle** found that lactose given for a short time in large doses caused diarrhœa, during which lactose is found in large quantities in the urine and in small quantities in the fæces. In green stools lactose is found in excess of the total ingestion of this sugar, and where it is absent lactic acid is found. The presence of these two substances seems to result from the rapidity of the intestinal transit. The author is of opinion that lactic acid, characteristic of green stools and already present in the intestine previous to evacuation, is a normal product, produced in considerable quantity during digestion at the expense of the carbohydrates, and whose elimination is associated with a pathological condition. Its *rôle* in the intestine may be to excite the secretion of certain glands, or to facilitate the breaking up of certain substances and to further the action of the digestive ferments. But the author thinks that its chief use is to maintain at a nearly constant level the nature of the bacterial flora of the intestine by promoting a tendency towards mono-microbism, a *rôle* which explains the good results obtained by the administration of cultures of various lactic bacteria and of fermented milk such as kephis and koumiss. Lesage has shown that the green coloration of diarrhœtic stools may not be entirely due to biliverdin, but also to a green pigment secreted by a *coli*-form microbe. In the latter instance the fæces would not give the reaction of the bile-pigments. The author, in making autopsies in cases of gastro-enteritis, has noticed an intensely green colour of the bile in the gall-bladder, and that yellow semi-solid fæces present very distinct green spots. Now, bile could only give a uniform green coloration to fæces if it is already green in the gall-bladder, and the author is now engaged in investigating the origin of this local green coloration.

VINCENT DICKINSON.

Acidified milk in pædiatric practice (*'Arch. of Pediat.,' June*, 1910, *p.* 426).—**Brady,** after mentioning that the peasants of Holland fed their infants on buttermilk 150 years ago, and its recommendation in recent times by Dutch and German physicians, relates his two years' experience with 400 children at the St. Ann's infant asylum at St. Louis. Commercial buttermilk was found unsuitable; the milk was always freshly and especially prepared, in hot weather being boiled beforehand. After inoculation with lactic acid bacillus, it was stood in a warm room for twenty-four hours to ripen. Before use it was diluted with barley-water, young infants receiving two parts barley-water to one part acidified milk, and older infants an equal part or one third barley-water. Older infants did not welcome the food so much as the younger ones. A tablespoonful of cane sugar was added to a quart of the mixture, or malt sugar instead of cane sugar, if the gain in weight was not satisfactory; if there was an intolerance of fat skim milk was used. Many of the babies receiving this food were healthy and remained so; green stools were seldom seen. In the "mucous disease" of Eustace Smith the stools rapidly became normal and all mucus disappeared. Infants fed on other food who showed colic were very amenable to this food; stomatitis, rickets, and scurvy were not feared. He had not ordered this food in private practice to healthy babies, as mothers have a considerable prejudice against it; it has an unpalatable appearance, and the idea of giving such a sour concoction to babies is not appealing. Acidified milk, being a pre-digested food, allows rest for the stomach and bowels, and was found especially useful during the great heat of the summer months at St. Louis; it was in

use chiefly during this time. There was no difficulty in returning to modified milk diet. Though the children may have been under weight, it was preferable to the gastro-enteritis which formerly prevailed. Casein in the form of lactate is placed at the disposal of the infant in an assimilable form. It would seem that fat alone, and proteid alone, are not responsible for the curds in the stools of infants fed on cow's milk; both act together to produce the curdy mucous stools. In acidified milk the proteids are in very fine particles; the deleterious influence on fats is removed, hence the normal stools. The good results seem due not only to the low fat percentage, to the presence of lactic acid, and to the chemical change of the proteid, but the presence of the lactic acid bacillus plays a very definite *rôle*.

J. E. Bullock.

Primary cancer of the liver (*'Nord. Med. Arkiv,' vol.* xlii, *Intern. Med., No.* 3. *Abst. 'Journ. A.M.A.'*).—**Pfannenstill** and **Sjövall** describe three cases of primary cancer of the liver, two of which were in children. The first was a factory girl, aged 16 years, who presented the typical syndrome of Banti's disease. The onset was sudden with pains in the epigastrium. Autopsy three years later revealed an unsuspected primary cancer in the liver. The other case was a girl, aged 14 years, who had symptoms for only a few months. In this case also there was chronic hyperplasia of the spleen and general anæmia with slight ascites, but no traces of cirrhosis of the liver.

T. R. Whipham.

Congenital icterus with splenic tumour (*'Med. Press,' August* 10, 1910, *p.* 142).—At the Budapest Royal Medical Society **Kaczvinsky** reported a case of a man who had been troubled by icterus since early childhood. The patient otherwise felt perfectly well, and physical examination revealed nothing except a fairly large, firm spleen. Several sisters and brothers, his mother, grandmother, and aunt, and some other more distant relatives were just as yellow and also complained of abdominal tumour. The patient's urine contained no pathological element except bile; his fæces were never acholic, and his blood showed a moderate anæmia and polychromatophilia. The pathology of the condition is not known, but it is likely that the enlargement of the spleen is the primary condition, and that the bile in the serum results from the action of some toxin on the liver.

T. R. Whipham.

A case of biliary colic occurring in a child, followed by the passage of a gall-stone (*'Indian Med. Gaz.,'* 1910, *p.* 300).—**F. H. Gleeson** describes this case, occurring in a girl, aged 1 year and 9 months. The patient had been seized with an attack of severe colic in July, 1908, and had had similar attacks every month until she came under observation in November. These continued until August, 1909, when there was a slight attack followed by the passage of a gall-stone about the size of a small pea. Since then there was no more colic. After the passage of the gall-stone jaundice occurred and lasted nearly three months. The liver extended three and a half inches below the costal margin in the nipple line. The liver was massaged thrice daily with potassium iodide ointment, and a mixture containing small doses of sodii sulph., sodii iodidi, sodii bicarb., and podophyllum was prescribed, also a powder consisting of hyd. c̄ creta, sodii bicarb., and pulv. rhei to be given every night. Chionia was added a month later in

drachm doses to the mixture. The child eventually became quite healthy, the jaundice disappeared, and there were no more attacks of colic.

James E. H. Sawyer (Birmingham).

A case of cirrhosis of the liver (*'St. Thomas's Hospital Reports,' vol.* xxxvii, 1908, *p.* 109).—**G. G. Butler.**—Female, aged 12 years. There was no history of phthisis and no alcoholic history. Indefinite abdominal pain fourteen days, with swelling of abdomen one week. The skin was a good deal pigmented. There was ascites and the spleen was enlarged. Calmette's test negative. Paracentesis several times, the ascitic fluid containing endothelial cells and finely granular oxyphiles. Urine contained blood and albumin. Hæmatemesis shortly before death. Post-mortem: Intestines and omentum adherent to anterior abdominal wall. Well-marked chronic peritonitis, with matting of intestines and localised collections of fluid. Portal vein not thrombosed. Liver small, 30 oz., pale irregular surface. Tough on section. Well-marked mixed cirrhosis on microscopical examination. Spleen very large; kidneys large; cortex swollen; acute nephritis. Pancreas normal. Dilated œsophageal veins.

James E. H. Sawyer (Birmingham).

Chronic appendicitis in children (*'Arch. de Méd. des Enfants,' June,* 1910).—**Comby** reviews 139 cases of children in which chronic appendicitis was diagnosed and discusses the differential signs. The condition is much commoner than is generally recognised. Many cases of supposed dyspepsia, anæmia, liver affection, entero-colitis, status lymphaticus, and tuberculosis are often the effect of chronic appendicitis, while acute appendicitis is merely the lighting up of a chronic process. Periodical vomiting and indigestion are premonitory of acute appendicitis. Constipation is habitual, though diarrhœa may sometimes occur. Failure in development has been observed, but after appendicectomy the children rapidly attain their normal size. In the nervous form of chronic appendicitis the patients are moody and disinclined to play or work. Intercostal neuralgia also may be a sign, or a pain in the right leg with a tendency to limp, suggesting disease of the hip or knee. In another class there is a tendency to faintness and pallor. Headache, convulsions, urticaria, and prurigo were observed in other cases. The proof that these various conditions are caused by appendicitis lies in the fact that restoration to health occurs after appendicectomy. A spontaneous cure of the chronic inflammation cannot be counted upon, though the symptoms may be latent sometimes for years. Surgical treatment is required in the majority of cases. The danger is slight, but the diagnosis must be positive. In cases of doubt the writer advises operation, and has never regretted having done so.

T. R. Whipham.

A case of megacolon (*'Nord. Med. Ark.,'* 1910, *Afd.* ii, *No.* 2, *p.* 45).—**A. H. Meyer** records a case in a boy, aged 4½ years. Since birth he had shown a tendency to constipation, but the real symptoms of Hirschsprung's disease first appeared at the age of six months. Meyer therefore thinks that at this time a twist had formed in the sigmoid flexure, giving rise to coprostasis followed by meteorism, dilatation and secondary hypertrophy of the large intestine. The child was put on a laxative diet and treated with large enemata given with a long and broad rectal tube. No improvement occurred during his first stay in hospital, and the following two years he spent at home, where he received an enema daily, and the fæces were removed an

hour later by a rectal tube. At the age of 6½ years he was admitted to hospital again, where he was treated with large injections of water, and within a few months he was discharged cured. The success of treatment is attributed to the fact that the boy had now reached the age when physiological involution of the sigmoid takes place, in consequence of which the twist disappeared. Meyer holds the dualist view that there is a congenital megacolon the prognosis of which is bad, and an acquired variety of which the present case is an example, the symptoms of which disappear at the age of six or seven years. J. D. Rolleston.

Remote symptoms from intestinal irritation in infants and children (*'New York State Journ. of Med.,' March*, 1910, *p.* 130).—**C. A. Frost** points out that intestinal intoxication and irritation is a very important ætiological factor in many apparently remote symptoms. Certain minor psychoses may occur as a result of this in children who, from heredity or other causes, are of unstable nervous organisation. Among these are included twelve cases of pica, four of pseudo-masturbation, many cases of nail-biting, and numerous other so-called bad habits, such as enuresis, fæcal incontinence, squints, constant winking, head-jerking, etc. These cases are probably forms of hysteria, and are merely the child's manifestations of what in later life would be recognised as such. Tetany and cyclic vomiting are also referred to as being symptoms of intestinal irritation. In thirty odd cases of acute and chronic intestinal diseases the urine was examined, and casts and albumin were found in a few of the more severe acute cases, being considered to be due to the general toxic condition. Dr. George Carpenter's paper in The British Journal of Children's Diseases, *October*, 1907, is quoted to show that an interstitial nephritis may begin in early life as the result of intestinal toxins. Certain skin affections are described as being remote symptoms of intestinal irritation, and these include two cases of angio-neurotic œdema, cases of eczema, erythema nodosum, urticaria, pruritus, etc. Conjunctivitis and sometimes a thickening of the eyelids are often found in patients suffering from chronic diarrhœa, but are more properly results of the malnutrition dependent upon an intestinal trouble. Acute pharyngitis is frequently caused by digestive disturbances, and a predisposition to a sore throat is really a weakened digestive tract. The author emphasises that every child is a neurotic, that all the symptoms which may occur from an upset equilibrium may be produced by a very slight intestinal irritant, as the infant's intestine is the mainspring of its well-being, and that the resulting remote irritations are far more profound than in the adult.
James E. H. Sawyer (Birmingham).

Intestinal infections in children (*'Med. Record,'* 1910, II, *p.* 85).—**J. E. Winters.**—After stating that the excessive mortality which exists among infants is chiefly among those who are bottle-fed, the author pointed out that the tenement house population furnishes 98 per cent. of the deaths consequent upon wrong feeding. This gives rise to infectious processes which may prove rapidly fatal from the condition set up in the intestines, and if more prolonged produces broncho-pneumonia or more rarely pleuritic effusion, otitis media, and other complications. The treatment he advocated is first to clear out the bowel thoroughly with a large dose of ice-cold castor-oil. If vomiting is a feature nothing is so efficacious as the administration of hot water in drops. Water alone should be given for a considerable time, and then the infant should be fed upon a mixture composed of the top half

ounce of quart bottles of milk, water and lime-water. The milk used should be cooled immediately after being drawn, placed in bottles and kept at a temperature of 40° F. Later the top ounce instead of half ounce may be used, in dilutions varying with the age of the child. In older children farinaceous food is a specific for the diarrhœa.

FREDERICK LANGMEAD.

Treatment.

The treatment of severe forms of infantile atrophy (*'La Clin. Infant.,' May,* 1910, *No.* 10, *p.* 289).—**G. Variot**, in a communication on this subject, strongly advocates the use of milk superheated to 108° and homogenised. This amount of superheating, far from detracting from the nutritive value of cow's milk, modifies the casein so as to render it more digestible for the infant, while homogenisation, by emulsifying the fat globules, forms a kind of predigestion which facilitates the use of this milk by even the most feeble and atrophic children. In severe atrophy this milk may be given pure if the children are six months of age; below this age one quarter water should be added and a little sugar. If there is vomiting the author adds to each bottle a tablespoonful of a 1 in 60 solution of citrate of soda, and if intolerance persists in spite of this a small quantity of pegnine is added. To stimulate growth doses of arrhenal, ½ to 1 cntgr. in twenty-four hours, or small doses of binoxide of manganese are given.

VINCENT DICKINSON.

Training in the constipation of the young (*'Therap. der Gegenwart,' July,* 1910).—**Budberg** draws attention to the fact that constipation is rare among children in the East. Regular habits of defæcation are inculcated from birth. When the child wakes in the morning the mother takes the buttocks of the infant between her hands and holds the child up with its back towards her, pressing its thighs against the abdomen and supporting its back with her thumbs or knees. The infant is thus induced to strain on account of its position, and is further coaxed to do so by the mother. In China and Japan infants of even two months are thus kept clean and dry, while the ills of constipation are averted. T. R. WHIPHAM.

Treatment of Barlow's disease (*'La Clin. Infant.,' July,* 1910, *No.* 14, *p.* 427).—**H. Triboulet** advises—(1) Suppression of diet known to produce scurvy, as farinaceous food and condensed and humanised milk. (2) Adoption of an anti-scorbutic diet, fresh milk, raw broths of fresh vegetables. Lemon juice, from one to three coffee-spoonfuls daily. (3) When convalescence is established, meat-juice and small doses of iron, with or without rhubarb, as protoxalate of iron, rhubarb, of each 0·04 gr. (about ¾ gr.).

VINCENT DICKINSON.

Human blood-serum in hæmophilia neonatorum (*'Amer. Journ. of the Med. Sciences,' June,* 1910).—**Welch** reports a series of cases of bleeding in babies, the cause of which is probably due to different factors. The bleeding was either in the subcutaneous tissues, or from the gums, nose, stomach, bowel, or vulva, or in more than one of these situations: it also occurred from the umbilical cord and after circumcision. Post mortem the chief hæmorrhage was found in the brain or in the liver, the capsule of the latter being at times almost entirely dissected off. Hæmorrhages into the

internal organs and effusion of blood into the various serous cavities were also found. It is possible that some cases are true hæmophilia, while others are due to an infection either by the streptococcus, staphylococcus, or a bacillus. Normal human blood-serum is bactericidal in action and is a perfect form of food. It may be that in some cases hæmorrhage is controlled by the nutritive effect on the tissues of the infant, while in others it is possible that a thrombokinase is supplied. The method of treatment is by injection of at least 10 c.c. of serum, subcutaneously, three times a day if the bleeding is moderate. In severe cases it should be given every two hours and in larger quantities. It is important to begin the treatment early, as even slight bleeding from the cord may be accompanied by severe internal hæmorrhage if not stopped immediately. T. R. Whipham.

Serum treatment of hæmorrhagic disease of the new-born (*'Journ. of Amer. Med. Assoc.,' July* 30, 1910).—**Bigelow** reports three cases of severe hæmorrhage in infants, which in each instance was arrested by the injection of 5 c.c. of fresh rabbit's serum. In two of the cases the previous administration of calcium lactate had had no effect. The serum produced no untoward symptoms, and the author is constrained to attribute the arrest of the hæmorrhage to its use. T. R. Whipham.

Transfusion as a cure for melæna neonatorum (*'Journ. of Amer. Med. Assoc.,' May* 14, 1910).—**Mosenthal** remarks on the futility of the usual methods of controlling the severe hæmorrhages of melæna neonatorum, and reports a third case in which transfusion brought about an immediate and permanent cessation. The infant, a male, was born about two weeks prematurely, and weighed 5 lb. 2 oz. on the third day, when the melæna commenced. After eight hours the child was much collapsed, and transfusion by an end-to-end anastomosis of the femoral vein to the radial artery of the child's father was performed, though not without difficulty. The blood, however, flowed freely, and the child rapidly improved. One other bloody stool was passed, but this was evidently contained within the intestine at the time of the transfusion and no further hæmorrhage occurred. The treatment is based on the supposition that the bleeding is due to the abnormal clotting quality of the child's blood. T. R. Whipham.

An improvised pneumatic tampon for epistaxis (*'Journ. of Amer. Med. Assoc.,' June* 18, 1910.)—**Stewart** describes an improvised tampon which he employed with success in a case of epistaxis which could not be controlled by the ordinary anterior and posterior tampons. A finger was cut from a thin rubber operating glove and tied round the end of a catheter. This was inserted into the naris and inflated by blowing into the catheter. A tampon had to be inserted into the posterior naris to prevent the glove-finger ballooning into the pharynx. The catheter was closed by doubling and tying or catching with a hæmostat, and was held out of the way by adhesive plaster. T. R. Whipham.

The treatment of hernia in children (*'Canadian Journ. of Med. and Surg.,' April*, 1910).—**Shuttleworth.**—That the large majority of infantile herniæ have a tendency to disappear of themselves was shown by Malgaigne sixty years ago, and Martin has shown that during the enlargement of the pelvis the mesentery is shortened and so prevents the entrance of the intestine into the inguinal or crural canals. It has been shown that increased intra-

abdominal pressure from constipation, crying, etc., is a most important cause of herniæ in children; a tight abdominal binder acts in a similar way. Oshsner has shown that a large percentage of herniæ in children will heal spontaneously if the increased abdominal pressure be relieved, which can be done by keeping the child in bed with the lower end elevated for a month or six weeks. Coughs, constipation, etc., must be relieved, and any gaseous distension of the abdomen treated. The child should not be allowed to walk, as this brings the weight of the viscera on the weak spot. The sitting position is less harmful. J. Porter Parkinson.

Surgery.

A case of hypogastrodidymy (*'Allg. Wien. med. Zeitung.,' June* 21, 1910).—**Neufeld** describes this rare case of twins joined at the pelvis and abdomen; delivery occurred spontaneously without medical help. The right-sided child was 41 cm. long, head circumference 34 cm., mento-occipital diameter 20 cm., bi-parietal 16 cm. The left-sided child was smaller; length 37 cm., head circumference 26 cm., mento-occipital diameter 16 cm., bi-parietal 12 cm. Eyes, noses, mouths, chests and lungs normal. No heart-sounds heard in right child; over the heart of the left there was a soft murmur. Percussion showed normal dimensions in both. The individual formation of the children ceased at the lower part of the thorax, commencing at the left ribs; the abdomen and pelvis were common to the two children. At the lower part of the abdomen there was a cleft $4\frac{1}{2}$ cm. long and 2 cm. wide; the cord passed through the upper part of this in a fissure. Just beneath this was a large curved mass, probably the ectopic bladder. At the lower corner of the cleft there were four papillomatous structures. One of these resembled a rudimentary penis; there was a fine opening at the top through which no catheter could be passed. The symphysis was widely separated. There was no anus, but two linear skin creases in the perinæum. There were four arms with normal fingers; in front there were two legs with normally developed toes. From the back a third lower limb was seen, 7 cm. higher than the other two and articulated to the pelvis of the left child. The foot was a club foot with five abnormal toes. There was besides, on the dorsum pedis near the metatarsal articulation, a sixth toe. The children lived three and a half days. M. D. Eder.

An unusual case of congenital absence of the anus and lower end of the rectum (*'Med. Record,'* 1910, II, *p.* 237).—**Joseph Wiener** narrates a case of an infant who was the subject of malformation of the ears and an imperforate anus. No anal dimple was present. The two halves of the scrotum were separate, and bulging between them was a cystic swelling 1 cm. in diameter. An operation was performed on the day after birth. The cystic swelling proved to end blindly. By abdominal incision the gut was found to end in a pouch in the mid-sacral region. It was opened and stitched down to the perinæal region, which had been previously incised. Recovery was delayed by difficulty in feeding the infant and by a left otitis media, but eventually he put on weight, and when discharged three months later was gaining steadily. Frederick Langmead.

Congenital fusion of toes (*'Med. Record,'* 1910, II, *p.* 67).—**F. Griffith** records a case in a male child, aged 11 months, who had a complete linear

fusion between the second and third toes in both feet. The patient was the first-born child of healthy parents. Both the mother and maternal grandmother had a similar unilateral mal-development.

J. D. Rolleston.

Carcinoma in early life (*"Proc. Path. Soc. of Philadelphia," 'Journ. of Amer. Med. Assoc.,' August* 27, 1910, *p.* 794).—**Karsner** reports a series of ten cases of carcinoma in early life at the ages of 7, 10, 11, 14, 19, 21, 22, and three at the age of 23. Five were males and five females. The duration of all the cases was short, confirming the opinion that cancer runs a more rapid course in childhood and early life than in adult life. The author's experience and a study of the literature shows that the sexes are equally predisposed to cancer, the intestine and skin being especially affected in boys and the ovaries in girls. T. R. Whipham.

A fibro-adamantinoma arising in the lower jaw (*'St. Thomas's Hospital Reports,' vol.* xxxvii, 1908, *p.* 253).—**S. G. Shattock.**—The growth was removed by Mr. Robinson from a patient aged 6 months, a somewhat bilobed oval tumour, two and a half inches in its chief diameter, and consisting chiefly of fibrous tissue, having developed in the right side of the lower jaw, in which it was deeply embedded, the bone being thinned over it. One of the molar teeth had been removed with the growth in which it partly lay. Histologically it consisted chiefly of fibrous tissue, but with here and there narrow tracks of epithelium, in some of which irregular calcification was in progress. The tumour was classified as a fibro-adamantinoma arising in connection with an aberrant development of dentinal structures. James E. H. Sawyer (Birmingham).

Vaginal racemose sarcoma in a child (*'Zeitschr. f. Geburts. u. Gyn.,' vol.* lxvi, *No.* 3, *abst. 'Journ. A.M.A.'*).—**Knoop** reports the case of a female child, aged 3 years, in whom a racemose sarcoma of the vagina recurred twice within six months, after which death ensued. The writer, insists that even an apparently simple vaginal polypus in a child necessitates the removal of the entire genital apparatus by Wertheim's method. Malignant vaginal growths in a child are more serious than in adults, and require even more energetic measures. T. R. Whipham.

Ovarian dermoid in a child, aged 8 years (*'China Med. Journ.,'* 1910, *p.* 349).—**Ruth B. Massey.**—A Chinese girl, aged 8 years, was brought for treatment on account of pain and swelling of the abdomen. Examination revealed a tense, movable tumour the size of a cocoa-nut in the lower part of the abdomen and slightly to the right of the middle line. The condition, which had been noticed for two months, caused no trouble till severe pain came on suddenly, and for some days the girl was unable to stand upright. The tumour then became more tender and less movable. At the operation a cyst was found and easily cleared of recently formed adhesions to the omentum; on tapping some fluid was drawn off slowly, but on aspiration the flow stopped at once. A second attempt proved equally unsuccessful. The cyst was then brought out of the abdomen, and the pedicle, which was long and twisted, was ligatured and divided. No trace of another ovary or a uterus was found. The child made a good recovery. The tumour proved to be an unilocular cyst containing fluid, in which a fine network of fibrin floated, and this doubtless accounted for the trocar becoming blocked when attached

to the aspirator. In the lower part of the cyst was a solid tumour containing hair and a small piece of bone.

DUNCAN C. L. FITZWILLIAMS.

Primary cancer of the vermiform appendix (*'Nord. Med. Ark.,'* 1908, *Afd.* 1, *No.* 17, *p.* 9).—**W. Wahlgren.**—A girl, aged 15 years, was admitted to hospital for abdominal pain, which had come on fourteen days previously and had gradually become localised in the right iliac fossa. Nausea and vomiting soon developed. At the operation the appendix was found to be much thickened and at its proximal end a firm yellow-brown tumour was seen obliterating the lumen of the appendix and projecting into that of the cæcum. Microscopical examination showed it to be solid carcinoma. Recovery took place in a month's time, and two and a half years after the operation the girl was found to be quite healthy. J. D. ROLLESTON.

Bowel surgery in children: a method of cæcostomy for irrigating the large and small intestine (*'Journ. of Amer. Med. Assoc.,' October* 15, 1910, *p.* 1356).—**Gant** states that appendicostomy is falling into disrepute owing to the appendix being bound down by adhesions or otherwise unfit for irrigating purposes. A preferable method is cæcostomy, which allows either the large or small intestine to be irrigated. Through an incision over it the cæcum is brought into the wound, and three purse-string sutures are introduced in its outer surface opposite the ileo-cæcal valve and the intestine opened within the suture line. A Gant metal, or preferably, rubber entero-colonic irrigator, is guided through the ileo-cæcal valve, and the sutures are tied so that a circular cone-shaped valve is formed around the tube. The cæcum is then scarified and two suspensory sutures are introduced at the sides of the irrigator, which are passed through the abdominal wall and tied across the rubber tubings. When the wound is closed the irrigator is kept in place by tapes round the body. T. R. WHIPHAM.

Round worms passed from a fæcal fistula (*'China Med. Journ.,'* 1910, *p.* 348).—**Ruth B. Massey.**—A Chinese girl, aged 12 years, was brought for treatment because of a sinus in the right loin, which ran upwards and forwards. The sinus dated from a vague illness three or four years previously. Treatment was at first refused, but three weeks later she was brought again on account of worms passing from the wound. The child was admitted, and on examination the sinus was found discharging pus, but no fæcal matter was seen. After a severe attack of pain an anæsthetic was given and the sinus enlarged and explored. The last rib was felt to be healthy, there was no sign of spinal mischief, and though the liver could be felt, no disease was detected. A drainage tube was inserted and a dressing applied. On dressing the wound three days later fæcal matter was discovered in which were three round worms. Santonin was administered and ten worms were found at the second dressing, eight at the third, and a gradually decreasing number were seen at each dressing for four or five days. Many of the worms were alive when found in the dressing; at the same time a few were passed *per rectum*. There was great pain while the worms were being passed but this disappeared afterwards. No more worms were passed, although, when the child was removed from the hospital six weeks later, the fistula was still unclosed.

DUNCAN C. L. FITZWILLIAMS.

Intestinal obstruction from ascarides lumbricoides (*'Journ. of Amer. Med. Assoc.,' June* 18, 1910).—**Venning** reports a remarkable case of a boy, aged $2\frac{1}{2}$ years, who had passed eighty round worms by the mouth and anus in the course of a few days. Signs of intestinal obstruction supervened, and masses, evidently of worms, could be felt through the thin abdominal wall. During the night before operation ten worms were passed. The abdomen was opened and the small intestine seemed to be filled with worms, part of the jejunum being distended almost to the point of rupturing. Openings were made in the jejunum and ileum, and altogether 273 worms were removed, the average length being nine inches. No fæcal matter was found in any part of the intestines. It was estimated that at least one hundred worms were left in the bowel. The child was very collapsed at the time of operating and died six hours later. T. R. Whipham.

Intestinal obstruction from ascarides (*'Nord. Med. Ark.,'* 1910, *Afd.* II, *No.* 2, *p.* 27).—**S. M. Mygind.**—A child, aged 18 months, developed signs of intestinal obstruction, which laparotomy showed to be due to a mass of seventeen living ascarides. Death took place two hours after the operation. The fulminating character of the attack is attributed to the toxæmia produced by the worms. J. D. Rolleston.

Verminous appendicitis (*'Gaz. des Hop.,'* 1910, *p.* 1455).—**Garin** has collected thirty-four cases, seven of which were fatal, from recent literature, of appendicitis due to trichocephalus oxyuris or ascaris. The symptoms caused by the first two are those of ordinary appendicitis, but in appendicitis due to ascaris abscess and perforation are unusually frequent. Six of the seven deaths were due to this cause. Diagnosis can only be made by examination of the fæces. J. D. Rolleston.

Thread-worms in the appendix (*'Journ. of Amer. Med. Assoc.,' July* 9, 1910).—**Allen** records two more cases of this somewhat rare condition. In the first, a boy, aged 4 years, who was being operated upon for a right inguinal hernia, the appendix was found in the hernial sac and was removed. On opening it eleven thread-worms were found. The second case was a girl, aged 14 years, who had had an attack of appendicitis over a year previously, and several attacks of pain since. The appendix was removed, and was found to contain a ball of thread-worms at the distal end and several single worms along the walls. There were no gross changes in the walls, and it is possible that the movement of the worms caused a spasm of the appendix and so gave rise to the pain. T. R. Whipham.

Strangulated hernia in an infant, aged 16 days (*'Austral. Med. Gaz.,' April,* 1910).—**Moule** saw a baby who, on the sixteenth day after birth, was suddenly seized with vomiting and appeared very ill. After a slight improvement and the passage of some urine and fæces the author found a lump in the upper part of the scrotum on the right side which was irreducible even under chloroform. Operation was performed, when the sac proved to be a patent funicular process containing about four inches of purplish gut. T. R. Whipham.

Henoch's purpura with intussusception (*'Lancet,'* 1910, II, *p.* 802).—**J. H. Tonking.**—A boy, aged $5\frac{1}{2}$ years, fell ill with earache, headache and vomiting on June 2. On the 10th he had pain in the joints, and on the 13th and 14th purpuric spots on the buttocks were noted. On the 18th he had severe abdominal pain, and a swelling was seen above the umbilicus.

Laparotomy performed the same day revealed an enteric intussusception which was easily reduced. The whole of the swelling was infiltrated with blood. Recovery took place. At no time were blood and mucus passed *per rectum*.

J. D. Rolleston.

Reviews of Books.

The Fæces of Infants and Children: The Significance and Technique of their Examination (Die Fæces des Säuglings und des Kindes: Die Bedeutung und Technik ihrer Untersuchung). By Dr. Adolf F. Hecht, Physician for Children, Vienna, with a Preface by Hofrat Prof. Dr. Th. Escherich. Berlin and Wien: Urban & Schwarzenberg, 1910. Price M. 8.

In this work of 180 odd pages the author discusses in an introduction and twenty-one chapters the main features of one of the most important sections of practical medicine, viz. the constitution and characters of the stools in the different diseases of children.

Prof. Escherich, in a short but illuminating preface, justifies the work. Every sentence of this is the finished product of a master hand; no translation could do it justice, *e.g.*, the following: "Bei eintretender Verdauungsstörung gibt sie uns die Richtung an, in welcher die Ursache zu suchen und die Diät zu ändern ist, selbstverständlich nicht schematisch, sondern unter Berücksichtigung aller Verhältnisse."

The author's laboratory methods are those of Schmidt and Strasburger, H. Strauss, Bendix, Rubner and Heubner, E. Freund, Czerny and Keller, and other well-known workers whose contributions to physiological and pathological chemistry are recorded in 'Zeitschrift für physiologische Chemie,' 'Zeitschrift für Biologie,' 'Zeitschrift für Experimentelle Pathologie und Therapie,' Oppenheimer's 'Handbuch der Biochemie,' 'Zentralblatt für innere Medizin,' etc.

The work is characterised by German thoroughness throughout. The chapters on estimation of total N, bacteria, blood, carbohydrates and fat are all very full and very excellent. Those dealing with the cleavage products of albumins, and the putrefactive decomposition of proteins, whilst of the highest interest to the pure physiological chemist, are as yet largely beyond the reach of practical medicine.

In the chapters on ferments and bile constituents much new work has been incorporated.

Two divisions of the last chapter, viz. on the influence of pathological states of the stomach on the characters of the stools, and insufficient nutrition in older children, should be read and digested by every practising physician.

Indeed, there is not a chapter in the book which is not worthy of careful perusal and thought.

The Surgery of Childhood, including Orthopædic Surgery. By De Forest Willard, A.M., M.D., Ph.D., Professor of Orthopædic Surgery University of Pennsylvania, Surgeon to the Presbyterian Hospital, etc. With 712 illustrations, including 17 in colours. Philadelphia and London: J. B. Lippincott Company. Price 28s. net.

A melancholy interest attaches to the appearance of this fine volume, the author of which died after a short illness on October the 14th, 1910, in

his sixty-fifth year. Professor Willard has left behind a worthy memorial of his reputation which will be read with interest by every pædiatrist, and as a work on orthopædics will prove indispensable to the specialist. The chapters on tuberculous cervical adenitis, genito-urinary surgery, appendicitis, tuberculous disease of the bones and joints and infantile paralysis will well repay careful perusal. In the section on orthopædic surgery the author has admirably realised the ideal which he has set up for the orthopædic surgeon, who he claims should be a surgeon, a physician, a neurologist, a physical culturist, a mechanician and an immuniser.

By way of criticism we would suggest that more space might have been given to the discussion of hypertrophic stenosis of the pylorus and idiopathic dilatation of the colon, which together barely occupy a page, and we further notice that though thymectomy is recommended in recurrent cases of thymic dyspnœa no details are given of the operation.

The book is singularly free from misprints. We are pleased to find that the writer has insisted on the correct spelling of "orthopædics" and "pædiatrics." The following false concords require correction: *nævi pilosa*, *erigeron canadensis*, *megacolon congenita*, *treponema pallida*, and *ligamentum alaris*.

The work is in every way well up-to-date. Recognition of other writers is made in numerous references to the most recent literature. As a praiseworthy feature which will be appreciated by the busy practitioner, for whom the work is intended, is the insertion of summaries after the most important articles.

The text is accompanied by excellent illustrations, among which skiagrams predominate. A bibliography of the author's contributions to surgical literature is appended.

THREE LECTURES ON EPILEPSY, being the Morison Lectures delivered before the Royal College of Physicians of Edinburgh in 1910, by WILLIAM ALDREN TURNER, M.D., F.R.C.P. Edinburgh: John F. Mackenzie. Price 3s. 6d.

THE first lecture is entitled "The Problem of Epilepsy." After a short historical introduction the author proceeds to indicate that epilepsy is the clinical expression of a group of diseases which may be divided into four primary divisions: (1) Organic epilepsies; (2) early epilepsies; (3) late epilepsies; (4) idiopathic epilepsy. The two primary elements of the disease, the convulsive and the psychical, are next considered. Subsequently the pathological anatomy, predisposing causes, stigmata of degeneration, age at onset, exciting causes of epilepsy and immediate causes of epileptic seizures receive attention. The lecturer concludes this chapter by advancing evidence in support of the view that a toxæmic epilepsy exists.

The second lecture deals with "The Borderline of Epilepsy." Hysteria, epileptoid phenomena, under which term vasomotor and psychical attacks are considered, and sleep symptoms are here discussed.

"The Treatment of Epilepsy" is the title of the third lecture. The scope of the bromides, with special reference to the details of their administration, the value of other drugs, the influence of diet, notably the salt-free and purin-free dietaries, the special measures called for in attempting to arrest a fit and the treatment of the *status epilepticus* are in turn considered. The lecturer concludes by referring to the mode of life best suited to the cases of confirmed epilepsy.

These lectures will be read with interest since they refer to the most recent work on the subject, while the various problems are approached in an attractive manner.

Correspondence.

SAVING OF INFANT LIFE.

To the Editor of The British Journal of Children's Diseases.

Sir,—It was my privilege to hear on Saturday last at the inauguration of the Park Hospital, Lewisham, the sympathetic speech of the Rt. Hon. John Burns, in which he dilated on the admirable work the Metropolitan Asylums Board was doing in receiving the poor sick children of London from the workhouses and infirmaries for medical and surgical treatment. He stated: "It meant that in the first seven years the strength, capacity and fruitful potential life of the child could be either made or marred, and when they realised the susceptibility of the infant in those early years to disease, and that 234 per 1000 children passed away under five years—although that number was diminishing, he was glad to say—they also realised the risks of child life and the susceptibility to illness and permanent impairment of those who survived." On hearing these words it occurred to me that the Local Government Board, of which he is the distinguished President, is undoing with one hand what he is doing with the other by permitting the infantile population to be infected with an "acute specific disease," by which term vaccination has been described by Dr. Ballard, of the Local Government Board. The reports of the Registrar-General for England and Wales show that from 1881 to 1906 inclusive 1096 deaths were registered as due to "cow-pox and other effects of vaccination," and this in no measure expresses the full extent of the mischief; first, because they do not even profess to take account of injuries not resulting in death really caused by vaccination; secondly, because they cannot include cases of death really caused by vaccination, but not so registered, because the certifying doctor has considered the point doubtful, and has given vaccination the benefit of the doubt; and further, there is no record of those who are injured by the operation and whose vitality is lowered, rendering them more liable to take any prevailing disease. These are considerations which should influence those who have the health, happiness, and welfare of the infantile population at heart, and tend to the reduction of the fatal toll levied on infant life.

Yours, etc.,
W. L. Beurle.

Linden House,
Victoria Park Road, N.E.
November the 25th, 1910.

[We can best answer Mr. Beurle's letter by referring him to the statistics of the last London epidemic of smallpox published by the Metropolitan Asylums Board, of which he is one of the managers. In the Annual Reports for 1901 and 1902 he will find that of the 963 smallpox patients in the first seven years of life only 47 had been vaccinated, all of whom recovered, as compared with 916 unvaccinated cases, of whom 393 died—a mortality of 42·9 per cent.—Ed., British Journal of Children's Diseases.]